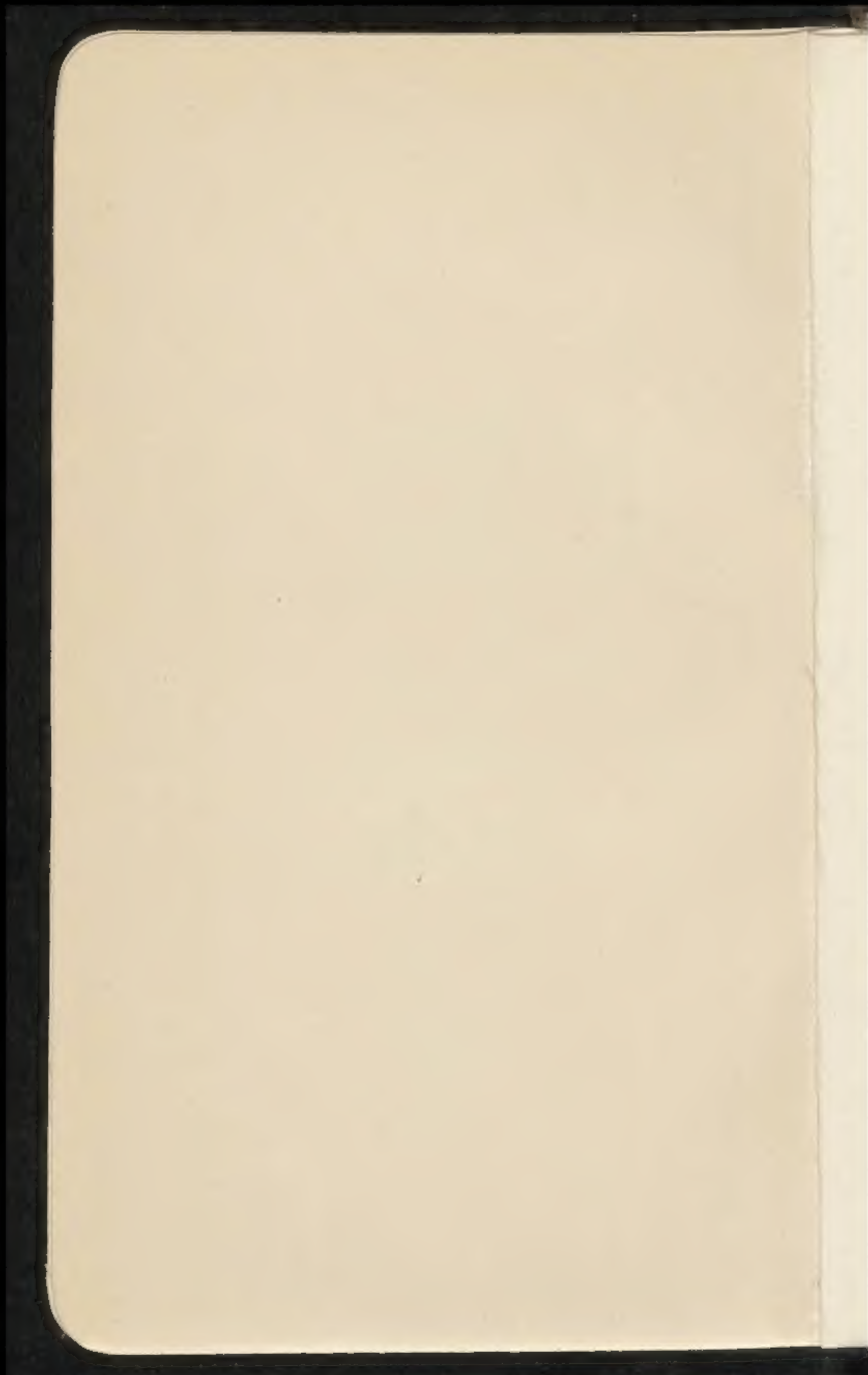


*Hints on Training
Territorial Infantry*
FROM
Recruit to Trained Soldier

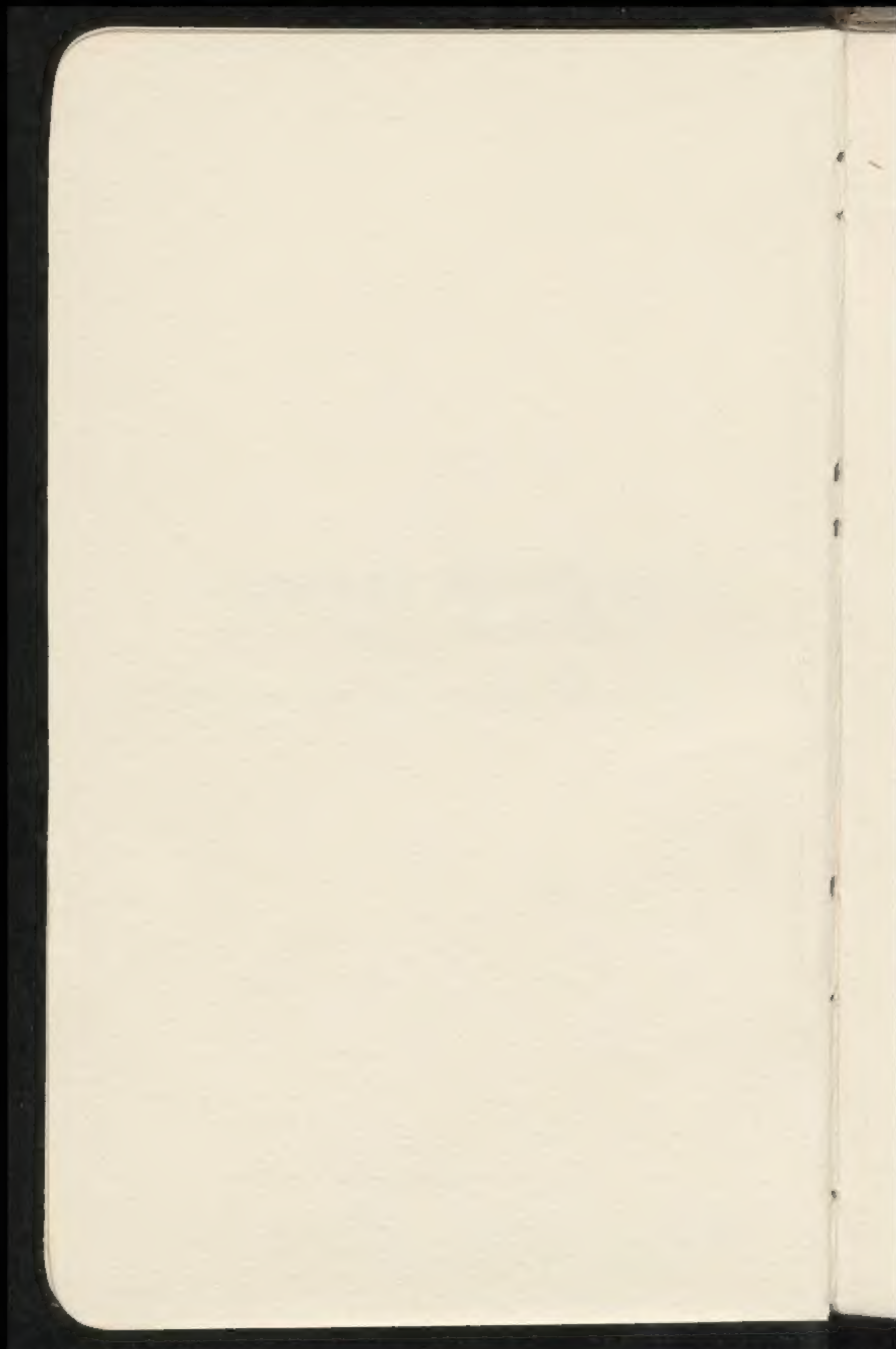
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HINTS ON TRAINING
TERRITORIAL INFANTRY

FROM RECRUIT TO TRAINED SOLDIER



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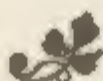
HINTS ON TRAINING TERRITORIAL INFANTRY .

FROM RECRUIT TO TRAINED SOLDIER

BY

CAPTAIN J. F. C. FULLER

2nd Oxfordshire and Buckinghamshire Light Infantry
Late Adjutant 10th (D.C.O.) Middlesex Regiment



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1913.

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HINTS ON TRAINING TERRITORIAL INFANTRY

TIME AND TRAINING.

When we compare the training of the Territorial Force with that of the Regular Army, we find that it varies in direct proportion to the time at the disposal of the two branches of the Service; and though the principles of the Training Manuals cannot be differentiated, for unity of action is essential, nevertheless, if we seek for success, the course of instruction which is laid down for the first line, must, if applied to the second, be modified in proportion as the hours of training and instruction are reduced. We find, in the one case, the recruit carrying out a thousand hours' drill in his first year, in the other, only forty. We find the trained man of the line continually under arms, constantly on parade,

■

and persistently, year in and year out, being forced willy-nilly to become a fighting man ; whilst the trained Territorial is, at most, undergoing a continuous training of fourteen days a year, and often not that.

It is not our object here to draw from these figures invidious comparisons—such should not exist, and would be quite beside the mark—for these preliminary remarks are made but to preface the urgent and absolute necessity of making the very best of the time at our disposal, instead of frittering it away, as is so often the case, in giving the laggards chances of catching up with their keener comrades, in place of enforcing, even if a slow, a regular pace for all.

INTELLECT AND TRAINING.

At various times it has been asserted, and we still continue to hear a great deal about the intellectual superiority of the Volunteer over the professional soldier. From a purely commercial (mathematical) point of view, this undoubtedly is so ; but

from a military aspect, when the unexpected takes the place of the formal, and experience and instinct succeed to theory and reason, this assertion of superiority is extremely doubtful, and a dangerous piece of flattery to cultivate, as it leads to the seeking of efficiency in self-esteem and "back-scratching" rather than in practice and hard work. Further, it is a moot point whether the man who cannot get on in the commercial world is not of material more suited to make a soldier than he, who, often through a want of individuality (by some people known as offensiveness), but with a veneer of complacence, sometimes subservience, easily, or more often ploddingly, succeeds where the more impetuous slip and fall. The failures of the labour market, and even those with a criminal taint in their characters, have often, in their blood, that dash of "barbarism" which in the field carries them beyond their more amenable brothers. The man who, never having failed during peace-regulated success, is as likely as not to succumb when failure and the ruin of war surround him, unless he knows

his work and has become disciplined and self-reliant through knowing it.

THE TERRITORIAL SOLDIER.

However, the one all-important point we have learnt to appreciate in the Territorial soldier is his keenness to be treated as a Regular; his appreciation of system; his willingness to submit to real inconvenience if he can see some progress towards becoming, in the professional sense of the word, a trained fighter. The mere fact that many of these men are drawn from the commercial classes, where business and method count for all, makes it easier for us to introduce into their military work a system which, if based on the time at their disposal, defies failure, because it commands respect, so much so that, being once commenced, few will fail to see it through, it being possible of accomplishment by all, and for these few there should be no mercy.

System is all in all to the Territorial soldier; he understands it, and, further, as a freeman, his natural pride revolts against the idea of his service in the Army being

composed like patchwork, out of odd scraps from other people's labours. He wants the real thing, and not the fulsome praise or the unfair criticism of the Press, or of critics who would have difficulty in distinguishing the butt of a rifle from its muzzle.

THE REGULATION MINIMUM.

In calculating the work to be done, we must not be greedy, we must keep within the regulations, not expecting the recruit to do 80 drills a year or the trained man 20, but, instead, by doing our utmost, we must endeavour to make the 40 and 10 actual hours' work demanded as profitable as we can; whilst we offer to the few keen spirits to be found in every unit, not further opportunities for drill, but a higher technical knowledge altogether. What this should consist of we do not intend to discuss here, for our object is to keep within the bounds of the work laid down by the regulations for recruits and trained men, viz.:—I., Annual Training; II., Musketry Training; III., Training in Camp.

ANNUAL TRAINING.

RECRUITS.

With recruits, the question is easy, and some eighty drills should annually be provided for, so as to give the recruit ample opportunities of completing the forty laid down. Each drill should not exceed one hour. After the first ten or twelve have been completed, musketry instruction should form part of each hour's work, and the whole should be based on a progressive syllabus of work, such as the following:—

RECRUITS.—SYLLABUS FOR 12 DRILLS.

(To be repeated six or seven times each year.)

Rifle Exercises and Musketry will not take part of the first 12 out of the 40 Recruit Drills.

- (A) 1. *Squad Drill*.—Position of Attention, Standing at Ease, Dressing with intervals.

2. *Rifle Exercises.* — The Order.

3. *Extended Order Drill.* — The whistle.

4. *Musketry.* — Parts of the rifle and use of safety catch.

(B) 1. *Squad Drill.* — Turnings.

2. *Rifle Exercises.* — The Order from the Slope, the Present from the Slope.

3. *Extended Order Drill.* — Signals : Advance or forward, and retire.

4. *Musketry.* — Care of arms.

(C) 1. *Squad Drill.* — Saluting.

2. *Rifle Exercises.* — The Slope from the Present, the Present from the Slope.

3. *Extended Order Drill.* — Signals : Quick time, Double, Halt.

4. *Musketry.* — Theory of musketry.

(D) 1. *Squad Drill.* — Marching, Quick March, the Halt, Stepping Out, Stepping Short, Marking Time.

2. *Rifle Exercises*.—The Order from the Slope, Fixing Bayonets, Unfixing Bayonets.
 3. *Extended Order Drill*.—Signals: Incline, Wheel, Lie Down.
 4. *Musketry*.—Loading and Unloading.
- (E)
1. *Squad Drill*.—Stepping Back, Changing Step, Double March.
 2. *Rifle Exercises*.—Inspecting arms on parade. Paying compliments with arms. Standing at Ease with arms.
 3. *Extended Order Drill*.—Signals: Extend and Close.
 4. *Musketry*.—Adjustment of back-sight.
- (F)
1. *Squad Drill*.—Side Step. Turnings when on the march.
 2. *Rifle Exercises*.—Attention from Standing at Ease, Trail from the Order, the Order from the Trail, Short Trail from the Order.

3. *Extended Order Drill*.—Signals:
Reinforce, Enemy in Sight,
No Enemy in Sight.
 4. *Musketry*.—Rules for aiming.
- (G)
1. *Squad Drill*. — Formation in
single rank, dressing when
halted, marching in squad.
 2. *Rifle Exercises*.—Fixing bayonets
on the march, the Charge from
the Slope.
 3. *Extended Order Drill*.—Extend-
ing from line while advancing,
and to a flank.
 4. *Musketry*. — Rules of trigger-
pressing.
- (H)
1. *Squad Drill*.—Diagonal march,
changing direction.
 2. *Rifle Exercises*. — The Secure
from the Slope, the Slope from
the Secure.
 3. *Extended Order Drill*.—Extend-
ing in oblique direction and
closing.
 4. *Musketry*.—Aiming at a bull's-
eye.

- (I)
 - 1. *Squad Drill*.—Marching in file, changing direction in file.
 - 2. *Rifle Exercises*.—Slinging arms.
 - 3. *Extended Order Drill*.—Changing direction.
 - 4. *Musketry*. — Position of firing, lying and kneeling.
- (K)
 - 1. *Squad Drill*.—Marching in file. Forming up into squad. Marching with arms.
 - 2. *Rifle Exercises*.—Grounding and taking up arms.
 - 3. *Extended Order Drill*.—Rapid extension by commander's expedients. The passage of obstacles.
 - 4. *Musketry*.—Visual training.
- (L)
 - 1. *Squad Drill*.—Formation of a squad in two ranks, dressing, marching and changing ranks.
 - 2. *Rifle Exercises*.—Piling and un-piling arms.
 - 3. *Extended Order Drill*.—Advance by alternate rushes.

4. *Musketry*.—Visual training and aiming.

(M) 1. *Squad Drill*. — Formation of fours.

2. *Rifle Exercises*. — Funeral exercise.

3. *Extended Order Drill*.—Meeting cavalry.

4. *Musketry*.—Visual training and aiming.

To ensure that drills, musketry, etc., are taught progressively, a complete list of the recruits' names should be made out on a card and hung up in the drill hall, and at the completion of each drill the index letter of the hour's work should be marked up against each man's name. If this is done, when the next drill takes place the recruits may then be divided up into squads according to the index letters; the Sergeant-Instructor in command of the parade calling out:—Privates Q.R.S.T., etc., "D" Squad; U.V.W., etc., "E" Squad; X.Y.Z., etc., "F" Squad. "D," "E," "F," representing the hour's instruction, to be imparted, according to the pro-

gramme. Thus if Private Q., after having attended "D," happens to miss a week's instruction, on his next appearance he will not be instructed in "F," but will be told off to "E" Squad, to carry out the work represented by that letter. If, however, a man absents himself for three or four weeks, this cannot be done; it is therefore important, as we shall see directly, to arrange for such a number of drills as will generally prevent this happening.

TRAINED MEN.

For trained men it is a mistake to give them too many opportunities to complete their ten drills in, for, if given, it will mean that the drills between November and June will be so badly attended that instructive company work is well-nigh impossible, and that the more the opportunities the more will men, and quite naturally too, put off and put off attending until the very last drills before camp, when there will be a general scamper to crowd them in in July, thereby

rendering useless the usually limited training area, and greatly increasing the work of the permanent staff at the busiest time of the year.

This is true enough from the point of view of what is best. But in a force constituted as the Territorial Force is, efficiency can only be gained by a nicety of adjustment between what is best and what is possible; so that opportunity will have to be carefully considered by each individual Commanding Officer before drawing up his programme of work, so that he may neither by an excess of drills swamp progressive training, nor so whittle them down as to cause friction between his men and their employers.

The part the employers of labour play in the Territorial Force has been little understood and much exploited by partisans. The employer is neither monster nor angel, for he is just as human as his employee, who will, with downcast countenance, inform the Adjutant: "Mr So-and-So cannot possibly spare me, sir; he really can't, etc., etc.," when Miss Some-

thing Else is fidgeting outside the drill hall door impatiently waiting to be taken to the nearest music hall.

When men cannot *possibly* carry out an evening parade, in nineteen cases out of twenty it is a matter of "cherchez la femme,"* and not one of sweated labour, brutality, or want of patriotism on the part of the masters. In large towns it is the music halls and picture palaces and not the factory that the Commanding Officer has to compete with, for the Trade Unions and the Shops Act legislate for the hours of work. But in small or large uncentralised cities, where no work is found patent to the place, difficulties do arise, and the small employer and, above all, the man who is his own master, have to be carefully considered, for they are in the majority. Thus, though Saturday is generally considered a good training day, in many parts of

*The writer has on several occasions had to answer letters from young ladies requesting him to inform them if Pte. — was really going on parade next Monday at 8 p.m.; or if it were true that Corpl. — must attend the week-end exercise? In some cases he has even been asked to furnish a certificate signed by the "C.O." vouching for their young man's absence, showing a considerable knowledge of military affairs as well as of human nature.

London it will be found a bad one, because it is the day upon which the small trader hopes to make large profits.

It may not be out of place here to classify the employers, for this has to be done before we can discover the nearest number of drills which bear the closest relationship to the number required by a progressive system of training. Thus if a progressive system can best be worked on twenty drills a year, and the Commanding Officer comes to the conclusion that forty will be required to satisfy the demands of the employer, etc., forty will be the correct number to adopt, and not twenty, or thirty, or fifty, or a hundred. The employers may be broadly classified as follows:—

(1) Those enthusiastic over the Territorial Force.

(2) Those hostile to it.

(3) Those who are willing to meet their employees half-way, and, as long as their business does not seriously suffer, are willing occasionally to excuse their men part of their work.

(4) Those indifferent to everything except their business, and who require their employees to complete their work, after which it is no business of theirs what they do in their spare time.

One and two may be set aside as far and few between ; but, in all cases, men should be asked before they are attested if their employers have been consulted, and, if not, why not ; and, if so, what nights they can spare their men, and if they can spare them for camp. If there is any real doubt on these points, the Adjutant should communicate with the employer, and place his answer before the Commanding Officer before final approval takes place. The bulk of the employers fall under headings (3) and (4); and, again, the bulk of these under heading (3); and even those under (4) are, in most cases, quite amenable to reason and appreciate being asked their opinion or consent.

A good battalion cannot be built up without trouble. To guess at the number of trainings is as fatal to success as to guess at a tactical situation. An employer

who can spare his men on forty evenings during the first year of their military service can generally spare them on ten in following years. And, as in a district comprising all castes and creeds of employment, the following syllabus of work has been found, both from the point of view of efficiency and opportunity, to be a practical and useful one, there is little reason why it should not prove so elsewhere when toned down to local colouring. The more the drills approximate to about twenty the higher the efficiency; the higher the efficiency the less often will employers be worried to excuse their men work, presumably to attend drills, but, in reality, to attend places of amusement.

One company drill a month, between November and May, should prove sufficient, if followed by thirteen to eighteen drills in June and July; that is to say, if local conditions do not demand more than about twenty. Route marches and lectures should not be counted as trainings. The following syllabus is suggested for such a course; it can be repeated two or three times during the year:—

TRAINED MEN—SYLLABUS OF
10 DRILLS.

- (A) 1. *Company Drill*. — Organization of a company, object of company drill, company in line, company in column of half-companies, company in column, company in column of fours.
2. *Extended Order Drill*. — Combined extended order movements in quick time by whistle.
3. *Musketry*. — Care of arms.
- (B) 1. *Company Drill*. — Inspection and telling off, formations in fours, changing ranks, dismissing.
2. *Extended Order Drill*. — Combined extended order movements in quick time by whistle.
3. *Musketry*. — Theory of musketry, dangerous space and cone of fire.

- (C) 1. *Company Drill.* — Company column forming into line.
- (a) A company column forming company when halted.
 - (b) A company column on the march forming company.
 - (c) A company column on the march forming company at the halt.
2. *Advanced Guards.* — Formation of company advanced guard.
3. *Musketry.* — Effect of ground.
- (D) 1. *Company Drill.* — A company column moving to a flank in fours forming column of fours, a company column moving to a flank in fours forming line facing the same direction, a company column forming line to a flank.
2. *Extended Order Drill.* — Combined extended order movements in double time.

3. *Musketry*.—Fire discipline and fire control.

- (E) 1. *Company Drill*. — Marching in line, advancing, with changed ranks, retiring, a company in line forming to the right or left.

(a) From the halt to the halt.

(b) From the halt and moving forward.

(c) On the march and moving forward.

(d) On the march and halting.

2. *Rear Guards*. — Formation of company flank and rear guards.

3. *Judging Distance* —Explanation

- (F) 1. *Company Drill*.—A company in line or moving to a flank in fours forming column of half-companies or company columns, a company in line forming company column.

(a) From company in line at the halt.

(b) From company in line on the march.

(c) Company in line on the march forming company column at the halt.

(d) A company in line forming company column to a flank.

2. *Outposts*.—Object of outposts and general rules for outposts.

3. *Musketry*.—Visual training.

(G) 1. *Company Drill*.—A company moving to a flank in fours forming company column, a company in column of fours forming forward into company column.

2. *Outposts*.—Formation of supports, piquets, and sentry lines.

3. *Musketry*.—Fire direction.

(H) 1. *Company Drill*.—When marching in fours or file forming up into line, company column changing direction.

2. *Extended Order Drill*.—Combined extended order movements.
 3. *Musketry*.—Adjustment of long range sights. Effect of wind and aiming off.
- (I)
1. *Company Drill*.—Movements in line or lines of half-companies and sections, ceremonial sizing a company.
 2. *Guards*. — Mounting and dismounting guards, duties of sentries.
 3. *Musketry*.—Rapid loading and unloading.
- (K)
1. *Company Drill*.—Movements in line or lines of half-companies and sections, ceremonial companies in line, saluting, company marching past.
 2. *Extended Order Drill*.—Combined extended order movements.
 3. *Musketry*. — Conduct on the range, annual musketry course explained.

MUSKETRY TRAINING.

If there is one thing that the Territorial soldier should, above all things, be urged to perfect himself in it is in his musketry, and this should not be difficult to accomplish.

The difficulty at present appears to consist in compelling him to fire the actual number of rounds authorized above those expended in the compulsory practices. To avoid a surplus, and to make full use of the considerable number of rounds now allowed a recruit, it is absolutely necessary to enforce some compulsory expenditure of voluntary rounds (rounds not actually required for the practices laid down) by instituting for indifferent shots a system of extra practices. The following system has proved itself a success.

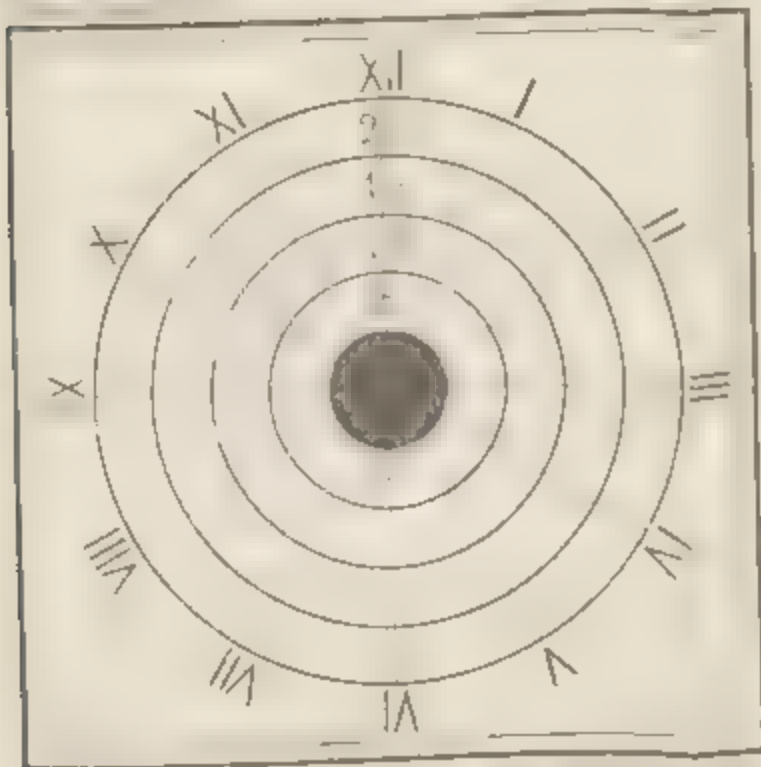
At the beginning of each musketry season each man receives a musketry card, on which is printed the practices he has got to fire by regulation, plus certain practices the Commanding Officer of his unit considers he should fire as well; these

may be called for convenience sake "extra practices." The number of these extra practices will be decided on after studying the registers of the previous year. Thus if Private A has fired extremely well, he will have no extra practices entered on his card; if only moderately, perhaps one or two; if badly, three, four, or five; if he fails at long ranges he will find extra long range practices on his card; if at rapid firing, he will find rapid practices; and so on, according as he has sown in bad shooting in the previous year so shall he reap in extra practices in the following. Musketry thus becomes a science for all ranks, in place of, as is too often the case at present, a mere destruction of good ammunition.

The recipient of the card must take it with him to the range on each occasion; and as he completes his practice, compulsory or extra, the officer or non-commissioned officer at the firing point will initial his card. Having completed his day's shooting he will report himself to the Sergeant-Major, who should be at the farthest firing point. The Sergeant-

SPECIMEN CARD.

GROUPING TARGET.



AIDS TO THE INTERPRETATION OF THE GROUP.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions, including sales, purchases, and expenses. It emphasizes the need for regular reconciliation and the use of reliable accounting software to ensure data integrity.

2. The second part outlines the various methods for collecting and analyzing market data. This includes primary research through surveys and focus groups, as well as secondary research using industry reports and public data sources. The goal is to gain a comprehensive understanding of the market landscape and identify key trends.

3. The third part focuses on developing effective marketing strategies. It covers the selection of target markets, the formulation of value propositions, and the implementation of promotional campaigns across multiple channels. The emphasis is on creating a cohesive and data-driven marketing plan.

4. The final part addresses the financial aspects of the business, including budgeting, forecasting, and performance evaluation. It provides guidance on how to allocate resources effectively and measure the return on investment for various marketing initiatives.

Battalion

MUSKETRY CARD.

RECRUITS

22

107

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MUSKETRY

Instructional Practices

【一、二、三、四、五、六、七、八、九、十、十一、十二、十三、十四、十五、十六、十七、十八、十九、二十、二十一、二十二、二十三、二十四、二十五、二十六、二十七、二十八、二十九、三十、三十一、三十二、三十三、三十四、三十五、三十六、三十七、三十八、三十九、四十、四十一、四十二、四十三、四十四、四十五、四十六、四十七、四十八、四十九、五十、五十一、五十二、五十三、五十四、五十五、五十六、五十七、五十八、五十九、六十、六十一、六十二、六十三、六十四、六十五、六十六、六十七、六十八、六十九、七十、七十一、七十二、七十三、七十四、七十五、七十六、七十七、七十八、七十九、八十、八十一、八十二、八十三、八十四、八十五、八十六、八十七、八十八、八十九、九十、九十一、九十二、九十三、九十四、九十五、九十六、九十七、九十八、九十九、一百】

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Standard Test

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Table A. Recruits' Course.

TABLE I
THERMAL STABILITY OF POLYMER FILMS

Problem	Target	Score	Number of
1	100	100	1
2	100	100	1
3	100	100	1
4	100	100	1
5	100	100	1
6	100	100	1
7	100	100	1
8	100	100	1
9	100	100	1
10	100	100	1

Snowing \$ extra practice

ANT 71 P L A I P U T E M S
I D I A N J O H N F I C E T E C 10 H O U S

CARE OF ARMS.

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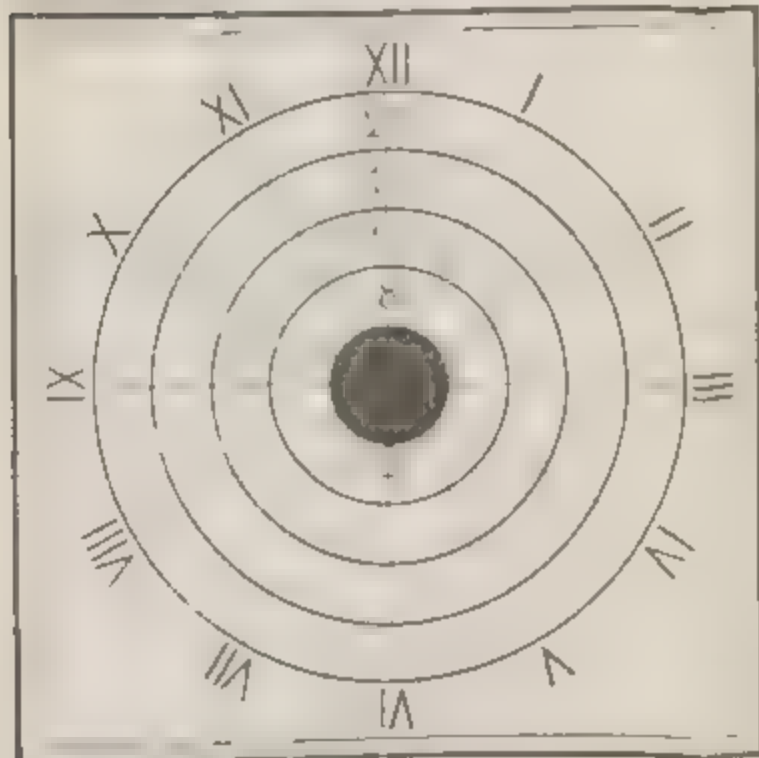
RULES FOR FIRING.

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**Never point the rifle at anyone.
Accidents will happen.**

SPECIMEN CARD.

GROUPING TARGET.



AIDS TO THE INTERPRETATION OF THE GROUP

[illegible]

Introduction

MUSKETRY CARD.

TRAINED MEN

13

1. 1. 1. 1. 1.

This was the night the Ridge men had
reasoned that was the best time to make a
move. They had gathered at the Ridge
at the first of the month and had
taken with them, the first of the month have their cards
in hand.

MUSKETRY

Instructional Practices,

$\frac{M_{\text{max}}}{M_0} = \frac{1}{1 - \frac{\rho}{\sigma}}$

Standard Test

[illegible]

Table B Trained Men's Course

PART		QUESTIONS		ANSWERS		SCORE	
1	1. The capital of the United States is Washington, D.C.	100%	100%	100%	100%	100%	100%
2	2. The largest city in the United States is New York City.	100%	100%	100%	100%	100%	100%
3	3. The longest river in the United States is the Mississippi River.	100%	100%	100%	100%	100%	100%
4	4. The highest mountain in the United States is Mount Everest.	100%	100%	100%	100%	100%	100%
5	5. The most populous state in the United States is California.	100%	100%	100%	100%	100%	100%
6	6. The smallest state in the United States is Rhode Island.	100%	100%	100%	100%	100%	100%
7	7. The oldest city in the United States is St. Augustine, Florida.	100%	100%	100%	100%	100%	100%
8	8. The newest state in the United States is Alaska.	100%	100%	100%	100%	100%	100%
9	9. The most common surname in the United States is Smith.	100%	100%	100%	100%	100%	100%
10	10. The most common first name in the United States is John.	100%	100%	100%	100%	100%	100%

* Show up 2 extra hrs. each

Lower-tier, Family Practices	C Numbers
Consecutive FPH Practices	D Numbers

CARE OF ARMS

The first of these is the fact that the
 second of these is the fact that the
 third of these is the fact that the
 fourth of these is the fact that the
 fifth of these is the fact that the
 sixth of these is the fact that the
 seventh of these is the fact that the
 eighth of these is the fact that the
 ninth of these is the fact that the
 tenth of these is the fact that the

RULES FOR FIRING.

[illegible]

**Never point the rifle at anyone.
Accidents will happen.**

Major, after examining his card, will pay him his railway fare. If he does not report to him he will be out of pocket to the extent of his journey, and this should on no account be refunded afterwards. This system of payment of railway fares on the range itself has been found an excellent one, and, generally speaking, the musketry grant is sufficient to allow of each man getting ninepence or a shilling above his fare, with which to get lunch or tea. Small prizes of five or ten shillings can also be given for the best shots; but, generally speaking, the men either take it all for granted, or are only too ready to fire when they see that a personal interest is being taken in their shooting, and when to fire or not is not left to their own decision, and when extra practices do not mean extra attendances on the range. The names of the very bad or careless shots should be taken and published in orders for extra practice on the miniature range.



TRAINING IN CAMP.

Training in camp is the be all and end all of the training in the Territorial Force. It should be a point of honour for every man to attend the full period, for it is the only real continuous training that is possible throughout the year, and, further, every officer should endeavour to do his utmost to get full value for himself and his men out of this all-important fortnight.

Various schemes have been suggested, and more than one tried, the result being that of these we have found the following to be best suited to our requirements.

PRELIMINARY INSTRUCTION. — During the winter months a certain number of voluntary lectures should be given by the Adjutant, followed in June and July by a non-commissioned officer's class. These lectures themselves are of little use outside giving the men a general idea of minor tactics; for, unless a lecture is followed by practical work based on the lecture, its

contents have little opportunity of impressing themselves on the minds of the listeners, and are by most as speedily forgotten as heard. But, in any case, as these lectures are voluntary, they are outside our present scheme of work.

THE PROGRAMME OF WORK.—The first thing to do is to draw up a programme of work. This should be done in time to let all ranks have a copy of it at least a fortnight prior to camp. Ten separate days' work will be sufficient as two days will be then left out of the twelve, and will be at the disposal of the Brigade Commander. The following is a specimen programme :—

PROGRAMME OF TRAINING IN CAMP.

All officers and non - commissioned officers are particularly requested to read, and carefully study, the following paragraphs of the Training Manuals, so that, before camp commences, they may have a thorough theoretical grasp of the work they will be called upon to carry out practically.

COMPANY TRAINING.

1st Day.

6.15 a.m.—7 a.m.

(a) Physical training under sergeant-instructors.

(b) Lecture by Adjutant to Officers on "Battle Formations." I.T., ss. 86-92, 126 and 122.)

8 a.m.—9 a.m.

Company Drill.

9 a.m.—10 a.m.

Preliminary training in extended order drill. (I.T., ss. 87-92.)

10 a.m.—11 a.m.

(a) Visual training and judging distance.

(b) Lecture by Company Officers to their non-commissioned officers and men on "Extended Order."

11 a.m.—1.30 p.m.

(a) Section extended order drill, taking cover. (I.T., s. 126.)

(b) Company extended order drill, pass-of orders. (I.T., s. 127.)

2nd Day.

6.15 a.m.—7 a.m.

(a) Physical training under sergeant-instructors.

(b) Lecture by Adjutant to Officers on "The Attack." (I.T., ss. 128, 132.)

8 a.m.—9 a.m.

Company Drill.

9 a.m.—10 a.m.

Preliminary extended order drill as above.

10 a.m.—11 a.m.

(a) Visual training and judging distance.

(b) Lecture by Company Officers to their non-commissioned officers and men: (1) "The Attack"; (2) "Fire Effect." (I.T., s. 122.)

11 a.m.—1.30 p.m.

Company extended order drill, taking cover, passing orders, reinforcing, men questioned on the position they have taken up with regard to effect of fire.

3rd Day.

6.15 a.m.—7 a.m.

(a) Physical training under sergeant-instructors.

(b) Lecture by Adjutant to Officers on "Fire Tactics" (I.T., ss. 124, 125; F.S.R., Pt. I, s. 105.) "and a Company in the Attack." (I.T., ss. 133-137.)

8 a.m.—9 a.m.

Company Drill.

9 a.m.—10 a.m.

Practical extended order drill (casualties amongst leaders).

10 a.m.—11 a.m.

(a) Visual training and judging distance.

(b) Lecture by Company Officers to their non-commissioned officers and men on "Fire Discipline and a Company in the Attack."

11 a.m.—1.30 p.m.

Company attack carried out on a marked enemy: (1) Over open ground, (2) over broken ground.

Ranges to be estimated by Section Commanders, and checked by range-finder, great care being taken that men fire at the target pointed out by fire-commanders. Non-commissioned officers to practise sending back reports.

4th Day.

6.15 a.m.—7 a.m.

(a) Physical training under sergeant-instructors.

(b) Lecture by Adjutant to Officers on "Defence." (I.T., ss. 138-147.)

8 a.m.—9 a.m.

Company Drill.

9 a.m.—10 a.m.

Practical extended order drill, mutual support of sections.

10 a.m.—11 a.m.

(a) Visual training and judging distance.

(b) Lecture by Company Officers to their non-commissioned officers and men on the "Defence."

11 a.m.—1.30 p.m.

Defence practice against an enemy who ultimately gains a position within 500 yards of line of defence.

5th Day.

6.15 a.m.—7 a.m.

(a) Physical training under sergeant-instructors.

(b) Lecture by Adjutant to Officers on "Outposts." (F.S.R., Pt. I., ss. 64, 75-89.)

8 a.m.—10 a.m.

Individual instruction in outpost duties. (F.S.R., Pt. I., ss. 81-88, in so far as they concern the duties of an outpost company.)

10 a.m.—11 a.m.

(a) Visual training and judging distance.

(b) Lecture by Company Officers to their non-commissioned officers and men on "Outposts."

11 a.m.—1.30 p.m.

Outpost scheme by companies, each company to furnish two piquets and a support; defence of outpost line against an attack.

6th Day.

6.15 a.m.—7 a.m.

- (a) Physical training under sergeant-instructors.
- (b) Lecture by Adjutant to Officers on (1) "Advance and Rear Guards" (F.S.R., Pt. I., ss. 64-69), (2) "Execution of Entrenchments." (M.F.E., ch. iii. and v.)

8 a.m.—1.30 p.m.

- (a) Lecture by Company Officers to their non-commissioned officers and men on: (a) "Advanced and Rear Guards," (b) "Use of Pick and Shovel. Marking out and execution of tasks. Extension of working parties. Execution of shelter trenches. (See Figs. 1 and 4, Plate 11, and Figs. 4 and 5,

Plate 12, F.S.P.B.). Outpost and shelter trench scheme. Advance to take up position under an advanced guard. Throw out an outpost line, entrench line of resistance, and retire covered by rear guard."

8.30 p.m.—10.30 p.m.

Line of outposts held during morning to be re-occupied during evening.

7th Day.

6.15 a.m.—7 a.m.

(a) Physical training under sergeant-instructors.

(b) Lecture by Adjutant to Officers on "The Attack." (I.T., ss. 128-137.)

8 a.m.—11 a.m.

Lecture by Company Officers to their non-commissioned officers and men on "The Attack."

One company to attack another occupying a defensive position. Scheme to be drawn up by Company Commanders.

11 a.m.—1.30 p.m.

- (a) Composition, formation, and action of Advanced and Rear Guards. Companies to act singly.
- (b) Companies to operate in pairs, one against another, as Advanced and Rear guards, under a simple scheme to be drawn up by Company Commanders.

BATTALION TRAINING.

8th Day.

6.15 a.m.—7 a.m.

- (a) Physical training under sergeant-instructors.
- (b) Lecture by Adjutant to Officers on "Night Operations." (F.S.R., Pt. I., ss. 131-140.)

8 a.m.—11 a.m.

- (a) Fire direction, control, and discipline. Fire positions, and mutual support of units by fire to cover advances. Reinforcement and reorganization of fire units.
- (b) Movements in line, or lines, of company columns.

11 a.m.—1.30 p.m.

Scheme.—Attack by battalion, position assaulted and carried. Outposts thrown out; counter-attack by enemy; defence of outpost line; retirement under mutual support of half-battalions.

8.30 p.m.—10.30 p.m.

Lecture by Company Officers to their non-commissioned officers and men on "Night Operations." (F.S.R., Pt. I., ss. 131-140.)

9th Day.

6.15 a.m.—7 a.m.

(a) Physical training under sergeant-instructors.

(b) Lecture by Adjutant to Officers on "The Battalion in Attack." (I.T., ss. 129, 130.)

8 a.m.—11 a.m.

As on 8th day.

11 a.m.—1.30 p.m.

Lecture by Company Officers to their non-commissioned officers and men on "The Battalion in Attack."

Scheme.—Advance to a position; advanced guard action; attack and assault of position, and counter-attack practised. Final retirement and rear guard action.

10th Day.

6.15 a.m.—7 a.m.

(a) Physical training under sergeant-instructors.

(b) Lecture by Adjutant on "Marches, Bivouacs, and Camp Sanitation."

8 a.m.—1.30 p.m.

Lecture by Company Officers to their non-commissioned officers and men on "Marches, Bivouacs, and Camp Sanitation."

Battalions to operate in pairs, one against another, in carrying out a scheme to be drawn up by the Brigadier.

11th Day.

BRIGADE TRAINING.

THE LEAFLET SYSTEM.

The next step is to amplify this programme in such a manner that each day's work may be set forth in some detail in a leaflet based on the principles enunciated in the official regulations. These leaflets are in no way meant to take the place of the Training Manuals, from which, for the most part, they directly draw their information; but to supplement them in two important ways. (1) To give the actual work which will be carried out in camp. (2) To give officers and non-commissioned officers an opportunity of knowing something; for, as the Training Manuals in the hands of an infantry subaltern total over one thousand closely written and terribly condensed pages, many of which pertain to the requirements of General and Staff Officers, it is quite hopeless in a civilian force, even to expect one officer out of fifty to really set to work and master their contents. In many cases, it is difficult

enough to get a beginner to interest himself in a pamphlet of twenty pages, and it is for this reason that leaflets are suggested as the best method of encouraging reading.

During camp the leaflet containing the next day's work should be distributed with the evening orders to all officers and non-commissioned officers. In the morning, whilst the companies are at physical training under the permanent staff sergeants (see programme), the Adjutant should lecture all officers on the leaflet containing the day's work. He should thoroughly explain it, amplify it, and encourage questions being asked on it. This done, later on in the morning, after company drill and the elementary field work laid down for the day has been completed, or during the break between the two halves of the morning's work, the company officers will gather their men round them and explain what the Adjutant gave out and lectured to them on earlier in the morning. This done, the companies will immediately carry out on the ground *practically* the instruction imparted *theoretically* by the

lecture. By this system the lecture will become a living thing, and the mistakes, if rectified on the spot, will help more than any explanation or theorising to impress the lecture on the minds of its hearers.

Before going to camp, the whole course of leaflets may, with advantage, be made up in pamphlet form, and sent round to all ranks with the camp programme. But from experience it has been found more satisfactory during camp to adhere to the leaflet system. For a pamphlet once given out is more easily lost than ten leaflets distributed on ten successive evenings. Further, the fact of receiving a leaflet each evening impresses on the mind of the recipient the necessity of studying it then and there for the next day. The following are actual specimens of these leaflets, but brought up to date in accordance with I.T., 1911, and F.S.R., Part I., 1912.

1.—DISCIPLINE.

Discipline not only expresses the common law of life that the weaker follow the lead of the stronger, but implies respect,

respect based on mutual confidence between officers and men, when both feel they can trust one another, and that no single man in the battalion will leave a comrade in the lurch.

Mutual confidence can only be built up on knowledge, training, and hard work.

If men are ignorant of their duties, how are even the best of officers going to lead them? If officers and non-commissioned officers are incapable, they will make almost as many mistakes with trained troops as with untrained ones.

In the field, discipline no longer consists of rigid obedience, but of that quick and orderly motion which results from permanent organization and training; that knowledge that the mass will act as an unit; that each individual will help the other; that, in fact, each man is a good soldier and a good comrade.

A disciplined body of men does not act like a troupe of performing dogs, trained to certain tricks, but like a pack of hounds, each doing his utmost to further the hunt or battle.

How can discipline be improved? By reducing friction. For friction destroys discipline almost as quickly as defeat. And what is the originator of friction? Inefficiency, which causes counter-orders, mistakes, needless exertions, grumbling, and a general feeling of weakness and unreliance.

When men can march well, shoot well, and can manoeuvre well, and when officers and non-commissioned officers are not only brave, but capable and self-reliant, then will that consciousness of superiority that brooks no reverse, that overthrows all resistance, possess a battalion. This consciousness of superiority is the basis of *esprit de corps* and of all discipline.

2.—MARCHES.

(*F.S.R.*, Pt. I., s. 24; *I.T.*, ss. 107, 176).

The March is the foundation of all operations, for it enables the initiative to be seized. "To conquer is to advance."—Frederick the Great. Therefore, if men cannot march well, they cannot hope to carry out the fundamental principle of war,

viz.: To be stronger at a given time and place than the enemy; for the secret of manœuvres and combats lies in a man's legs and not in his arms. By activity alone can a weaker country cope with a stronger

Activity depends on: (1) Plenty of rest; (2) good food, little alcohol; (3) rigid march discipline; (4) *esprit de corps*.

Bad marching is more destructive than the enemy's fire. Every man who breaks down is an impediment; to be footsore is to be wounded.

Boots. — "Shoes help on marches, marches win battles."—Napoleon. "The first requirement of a soldier is a pair of boots: the second a pair of boots for a change; the third a pair of soles for repairs."—Wellington.

Men should become accustomed to their boots. A boot should be rather loose than tight; should lace low over the instep; should not allow too much play for foot, otherwise sore heels result; should not be too heavy; should have its toe and heel protected. Boots should always be well greased.

A man should have at least three pairs of socks; socks should be constantly washed. Soaping socks will prevent them galling the feet, and so will rubbing the feet with a mixture of spirit and fat. Feet should be kept clean; if skin is tender, wash feet in alum and water.

Uniform should be loose and easy, especially round neck and wrists. On a hot day, whilst marching, to unhook the collar and turn up the cuffs gives much relief.

Equipment should not gall, or press on the lungs.

March Discipline.—Good marching depends largely on march discipline. It is on the line of march that the discipline of an army reveals itself.

Preparations for March.—(1) Half an hour before a march, the company officers will visit their companies and see that the non-commissioned officers are doing their duty. (2) A quarter-of-an-hour before a march all baggage waggons must be drawn up at their appointed place.

Formation and Station of Officers.—

(1) When marching in fours not more than four men, including commanders and supernumeraries, should march abreast. (2) Columns of fours will march on left side of road: if men on extreme left are caused inconvenience, change after each halt. (3) Exact distances and covering are to be maintained. (4) Majors are to march in rear of their respective wings when on foot, in rear of battalion when mounted. Captains in front of their companies, one subaltern in rear.

Marching at Ease and Halting.—(1)

Men must march at attention until ordered to march at ease. (2) When marching at ease fours are not to open out. (3) When the halt is signalled, the head of the battalion will stand fast, and although it should not be closed up to preceding one, the rest of battalion will close up.

Defiling to be Prevented.—(1)

No unit is to defile, or diminish its front, or attempt to avoid a bad spot in road, unless the preceding unit has done so. (2) When defiling is necessary, it must be executed

with order and precision. (3) Whenever a stream, ditch, or bank is to be crossed, the front should be increased, and not diminished, by extension before arriving. (4) When a very bad place has to be passed, an officer will superintend the crossing.

Stragglers.—(1) No man is to quit the ranks for any purpose without permission from his Captain. (2) Officers must prevent their men going out of the ranks for water; when this is required, the battalion will be halted. (3) Every man unable to keep up must receive a ticket: "The bearer marched off with the battalion, but was unable to keep up with it. Signed . . . Commanding Company." (4) Men who obtain permission to fall out to ease themselves must leave their rifle to be carried by their section.

Stepping Out to be Prevented.—(1) Men are never to step out beyond the regulation pace unless ordered to. (2) If distance has to be made up, the head of the battalion or company must step short. (3) After passing an obstacle, the leading company will step short until the rear is closed up.

(4) When a central or rear company cannot keep up, its Captain must pass word up for companies in front to step short. (5) If many obstacles cross a line of march, companies should march independently of each other.

3.—BATTLE FORMATIONS.

(*I.T.*, ss. 86-92, 122, 126.)

In order to approach to within close range of a well-armed enemy by day, it is usually necessary to advance in extended order.

Extensions have been rendered necessary on account of the range of modern weapons, and therefore are made with reference to: (1) Enemy's fire; (2) nature of the ground. Extensions in face of an enemy not armed with a missile weapon would be madness, for an extended line is not a formation to employ against an enemy armed with weapons which can only be used at close quarters, close formations are then necessary.

Extensions are good because they minimise losses in numbers and *moral*. Exten-

sions are bad because they weaken control and fire effect. Extended order, therefore, consists in reducing the target offered as much as possible, with a minimum reduction of volume of fire. Every foot of extension that may be saved renders the task of the commander easier, and tends to make success more certain.

Extensions are made to avoid losses at distant ranges so that at close the maximum volume of fire may be developed.

Preliminary Training. — An extended order movement is a tactical exercise, not a drill; mechanical precision is not aimed at; men move in single rank at the trail; when halted they will lie down, turn towards direction of enemy, and take cover. The instructors always to work with reference to enemy's position. Method of extending and closing (I.T., s. 88); signals (I.T., s. 92).

Co-operation and Practical Formations in the Field. — (1) Men must be accustomed to work in pairs at any interval and in any formation. (2) The general direction and a rough line must be maintained by all

ranks; men must not mask each others fire. (3) The section is the unit of command; sections to co-operate. (4) The two squads of a section to mutually support each other. (5) Sections to move by rushes, man by man, creeping forward in quick or double time as the ground dictates. (6) In advancing each man to avoid crowding his comrades, exposing himself, or unduly increasing the extension. (7) The halt once signalled, each man must drop to the ground, take cover, and concentrate his attention on the enemy. (8) Men must fire at the target named. Non-commissioned officers must be able to describe it clearly. (9) Men must be accustomed to the inter-mixture of units. (10) Men must be trained to observe and report movements of enemy. (11) Men must be trained to concentrate rapidly at any point the section commander may indicate. (12) Men must be trained to extend as they leave cover. (13) When leaders are down, men must continue fighting and push forward. To retire before a well-posted enemy without heavy covering fire is to commit suicide.

Retirements must afford intimate mutual support. Men should move from cover to cover in quickest time, the most active being left till the last. Sections will retire alternately. Men must be kept in hand, otherwise panic may result.

Cover.—Natural cover is the shield of the soldier. Cover to be efficient must: (1) Afford a good view of the ground. (2) Permit free use of rifle. (3) Give concealment to firer. (4) Provide protection against enemy's fire.

Points to be observed: Fire round cover when possible; get close up to cover; avoid rocks, isolated trees, easily ranged hedges, sky-lines, and cover contrasting with colour of uniform.

Besides natural cover there is cover by fire, which, when effective, is the most perfect cover of all.

Fire Effect.—Fire effect is the weapon of the soldier. (1) Only fire when the object can be seen. (2) Battles are won by accurate fire of individuals at close range; accurate fire further means mobility, for by beating down the enemy's

fire it enables troops to traverse the zone of fire. (3) Loading should be rapid, firing well aimed, long range fire discounted. (4) Concentrate fire and use oblique and enfilade when possible. (5) Shoot down the enemy's leaders. (6) Attempt to open fire unexpectedly and at short ranges.

Reorganizing.—It is good to reorganize when opportunities offer, but, better still, to train your men not to get out of hand. Reorganization in a firing line should always take place, unless such reorganization adversely affects the fire superiority, *élan* and *moral* of the attackers, cover should be utilized for this purpose, and especially the dips in the ground.

Scouts are to avoid fighting and masking the fire of the firing line. They are used to feel the way like a man stretching out his hand in the dark; once the object is obtained, information of the enemy or the ground, they are to fall back and report.

Efficient scouting consists in harmonizing cover and fire effect; and a good

scout should possess courage, cunning, and common-sense.

4.—FIRE CONTROL AND FIRE DISCIPLINE.

(*F.S.R.*, Pt. I., s. 6; *I.T.*, ss. 124, 125).

All warfare has known but two kinds of weapons: (1) to use at a distance; (2) to use at close quarters. As these two kinds are improved so do tactics change. That side which can make best use of its weapons is the nearest to victory.

Past tactics depended on shock, because the range of the musket was very short; but weapons having been improved, modern tactics depend on "Superiority of Fire." The essence of infantry tactics consists in breaking down the enemy's resistance by sheer weight and direction of fire. To advance troops to close quarters under a destructive fire, and to maintain control in the decisive fire fight, is the object of all tactical leading.

To do so troops have to extend at distant ranges and advance in close order at close ranges. They extend at ranges whence

their fire has little effect, and are built up by the supports into a thick firing line, when nearing those from where individual good shooting can come into play.

Superiority of fire depends upon: (1) A dense firing-line at close range; (2) first-class individual shooting; (3) perfect fire discipline. (1) is obtained by reducing losses in the advance by extensions and cover. (2) by careful peace-training, coolness, and a not too hurried advance. (3) by perfect control of all ranks and submission to the will of the fire commander.

Extensions should be of the smallest compatible with safety, because the greater the extension the less control, the less control the less fire discipline, the less fire discipline the less fire superiority, the less fire superiority the less chance of victory.

The General Officer Commanding organizes the fire; the regimental officers direct it; the non-commissioned officers control it; the rank and file carry it out.

Fire Direction.—Consists mainly in adapting the General Officer Commanding's orders to the varying phases of the fire fight, and in locating the enemy and judging the range.

Fire Control.—A section leader will (1) convey his Captain's orders to his men; (2) see that men maintain direction; (3) see to adjustment of sights; (4) see that men make use of cover; (5) move his section from one position to another; (6) point out each new target; (7) see that ammunition is husbanded.

Before advancing, the section commander must (1) estimate the effect of the enemy's fire, whether it is increasing or decreasing; (2) take note of the ground he is about to advance over, with reference to cover and fire effect; and, having rapidly appreciated the situation, advance, extending further or closing, as his judgment demands. He has got to watch everything, his Captain, his men, the fire, and the ground, with the one idea always before him—"How can I improve and gain fire superiority."

Fire Discipline.—The men have got to obey their sectional commanders; in other words, they have got to exercise fire discipline. They have got (1) to pay strict attention to sights and signals; (2) to intelligently observe the enemy's fire; (3) to aim with steadiness and coolness; (4) to economize their ammunition; (5) to promptly cease fire when ordered, or when the target disappears; (6) to endure the enemy's fire; (7) to make use of cover for fire effect and self-preservation.

Ultimately, upon the men in the firing line depends the success or failure of the battle, and according as they have been trained during peace-time will they succeed or fail during war. "Soldiers who will not be beaten cannot be conquered; they may be annihilated, but not subdued."

Fire Formations.—At effective ranges troops advancing steadily and rapidly suffer less than when they remain lying down under fair cover. In retiring losses are heavier than in advancing. Against artillery fire use shallow columns, i.e.,

sections in fours or file, on an irregular front. When surprised by artillery fire advance rapidly. Against infantry fire small columns are usually employed up to 1,400 yards, under 1,400 yards columns usually form into lines. Supporting fire should be opened whenever possible. Against cavalry any formation which allows fire to be delivered quickly and accurately is suitable; closing an extended line is not necessary, but the men should fire kneeling or standing up. All formations should be made with reference to the ultimate object, viz., that of demoralizing the enemy by fire and assaulting him with the bayonet.

5.—THE ATTACK (i).

(I.T., ss. 128, 132).

“Decisive success in battle can be gained only by a vigorous offensive . . . a firm determination in all ranks to conquer at any cost, is the chief factor of success. Half-hearted measures never attain success in war, and lack of determination is the most fruitful source of defeat.”

The object of the attack is to destroy the enemy; each successive advance must, therefore, be prepared systematically with reference to the object.

Attacking infantry must be distributed in depth within its unit.

General Principles.—An attacking force is usually divided into two parts: (1) to develop the attack and wear down the enemy's power of resistance by engaging his front and forcing him to use his reserves; (2) to strike the decisive blow with. Normally, the action of infantry consists in (1) advancing to a good fire position; (2) the obtaining of fire superiority; (3) the assault. Infantry, when advancing, must be careful not to interfere with the fire of the guns. All leaders must endeavour to apply at all stages of the fight the principle of mutual support.

Troops taking part in a normal attack are divided into:—

(1) *Scouts.*—Scouts are sent out not to establish a firing line, but to protect it against surprise. Directly their functions

cease they should lie down until picked up by the advancing troops.

(2) *Firing Line*.—The firing line is the battle front. When the struggle for fire superiority commences, the firing line has to be built up to the requisite strength. This never takes place before effective rifle range (i.e., 1,400 yards) is reached, and seldom before 800 to 600 yards from the enemy's position.

(3) *Supports*.—Supports are used to stiffen the firing line. Between distant and effective ranges they should only be employed to reinforce the firing line when it begins to lag, on account of loss of numbers and *moral*. The supports, therefore, advance in successive lines, each line, as it joins the firing line, increasing its fire and so enabling it to advance a stage nearer to the object. The distance between the firing line and supports depends on (a) the work to be done; (b) the trajectory of arms used; (c) the ground.

(4) *The Reserves*.—The reserves are in the hands of the battalion commander, who, at first, holds them back to counter-

act a repulse of the firing line, and ultimately launches them forward at close range to create an overwhelming fire superiority, and so carry the firing line up to the enemy's position.

(5) *The General Reserve* is in the hands of the Commander of the whole force, and is usually employed to carry out the decisive attack.

Preliminary Measures.—Under cover of their advanced guards, troops take up formation of attack. Attack may be holding, decisive, a feint, or a combination of these. The moral effect of a flank attack is very great, because it threatens the enemy's line of communications. Surprise is most important in an out-flanking movement; therefore, the scouts must keep out of sight. "It is only by simplicity that results are ensured in war."

Infantry formations depend on: (*a*) fire, (*b*) ground; usually, beyond distant range (2,800 to 2,000 yards), lines of columns; at long (2,000 to 1,400 yards), lines of small columns; at effective (1,400 to 600 yards), in extended order; at close

(600 yards and under), a line thickening to at least one man per yard. Thus is the battalion deployed from mass into line.

Fire.—At distant and long ranges avoid the enemy's fire and make him unmask; at effective, control the enemy's fire; at close, silence the enemy's fire.

The Decisive Attack.—The infantry advance is covered by artillery fire. Success depends on intelligent co-operation; therefore, communication must be maintained. The attack should aim at (1) reaching close range with little loss; (2) attaining superiority of fire. The firing line should avoid opening fire until the defenders are clearly distinguished, and it should advance by fractions, mutually supporting each other. Long lines rising simultaneously quickly cover the ground, but reduce fire effect; individual men advancing soon get out of hand, though loss of fire at first is slight; therefore, the advance is generally carried out by small bodies suddenly moving forward by rushes of 20 to 30 paces, to avoid aimed fire. The closer the range the shorter the rushes.

The Assault.—The initiative for the assault must come from the firing line, and can only come from it when it has gained fire superiority. It should be delivered simultaneously and in strength. If the assault is successful, the troops should pursue the enemy with their fire; rally, reform, and entrench.

6.—THE ATTACK (ii.).

(*I.T.*, ss. 128-137).

Holding Attacks.—A holding attack is made to pin an enemy down in one position, to prevent him reinforcing another; it must, however, be vigorous, otherwise the enemy will not be misled; it should try and deceive the enemy. Look out for counter-attacks, and be sufficiently strong to advance against the enemy with a good chance of success—to bluff on a moderately strong hand.

Feints are carried out in the same manner as holding attacks, but they have less offensive power; they should guard against acting prematurely, and should

harass and alarm the enemy—to bluff on no hand at all.

Flank Attacks are frontal attacks against a flank; they should attempt to enfilade the enemy in the act of changing position, and in turn must guard against their outer flank being enfiladed. Their object is to force an enemy off his line of communications or retreat.

Formations, etc. — (1) Manœuvring under fire may now be deemed impossible, men must either move forward or backward, and if engaged within close range a withdrawal cannot take place save under cover of night. As to lie out in the open means a terrible loss of numbers and *moral*, the object of infantry in attack is to close with the enemy at the earliest possible moment which seems to offer a fair chance of success. Troops cannot execute movements towards a flank under fire of the enemy. (2) Troops should be trained to the conviction that though they will be supported, they will never be replaced until the battle is won. (3) The modern battle formation depends upon

depths within units; thus each section of a company supports the first, when friends support friends the energy generated is greater than when strangers support each other. (4) Once troops have come under effective fire it is impossible to direct their rifles anywhere but straight to their front. (5) Nothing so surely saps a soldier's *moral* as a long wait in a lying position. (6) Directly the firing line comes within close range the troops in rear will suffer little; reserves should, therefore, be closed up. Defenders instinctively fire on the troops that are doing them an injury. (7) The assault must be supported by fire of infantry detachments left lying down.

Machine Guns may be employed: (1) To cover the advance of the firing line at effective and close ranges; (2) to bring a concentrated fire on any particular spot; (3) to assist in repelling attacks delivered against the firing line; (4) to bring flanking fire to bear on an enemy; (5) to effect a holding attack by a sudden outburst of fire; (6) to hold points gained.

Machine guns should avoid drawing fire on the infantry.

Duties of Company Commander.—(1) To cover his advance with scouts; (2) to co-operate with the neighbouring companies; (3) to acquaint his Commanding Officer with the dispositions of the enemy; (4) to arrange for ammunition supply; (5) to control the fire of his men; (6) to lead the assault, rally and entrench.

Duties of Half-Company Commander.—(1) To look out for signals. (2) To maintain direction. (3) To supervise control of fire. (4) To observe the enemy and report. (5) To pick up leaderless men. (6) To rally his men after the assault.

Duties of Section Commander.—(1) To explain clearly the objective of the manoeuvre. (2) To select successive halting places. (3) To determine the best method of advance. (4) To see that the general direction is maintained. (5) To control the fire of the section. (6) To co-operate with neighbouring sections. (7) To prevent crowding. (8) To concentrate fire against particular objects. (9) To control expenditure of ammunition. (10) To indicate way from cover to cover. (11) To

transmit intelligence of the enemy's movements. (12) To reorganize his section whenever suitable.

Duties of Squad Commander.—(1) To repeat all signals. (2) To see that orders are obeyed. (3) To see that direction is maintained. (4) To see that the squad maintains connection with remainder of the section. (5) To see that the men use their rifles effectively. (6) To assist the advance of neighbouring squads.

Duties of the Individual Man.—(1) To act in co-operation with his comrades. (2) To carry out his commander's orders. (3) To estimate the range, fire deliberately, seek cover, and husband his ammunition. (4) To place himself under the nearest non-commissioned officer or oldest soldier should he lose touch with his section or squad commander. (5) If incapacitated from advancing, to place his ammunition in a conspicuous place, ready to be picked up by other men.

Squads must work in silence, orders must be passed by signal and acknowledged by a salute; commanders must not expose

themselves, and must be prepared at any moment to assume the duties of their immediate superiors. Remember that a determined and steady advance has the greatest effect on the nerves of the defenders. Such an advance will decrease the accuracy of the enemy's fire, whilst hesitation will increase it.

7.—THE ATTACK (iii.).

(*I.T.*, ss. 129, 130 ; *F.S.R.*, *Pt. I.*, ss. 99-106).

General Principles.—(1) Though units should never be hurried into action, it must be remembered that to attack quickly is half the battle. (2) "The first object of a commander, who seeks to gain the initiative in battle, is to develop superiority of fire as a preparation for the delivery of a decisive blow." (3) "The commander who is the first to realise the exact situation, and see his way clearly towards a general plan of battle, will get the best of it." (4) The preliminary handling of small detachments at the commencement of a battle is felt throughout the fight. (5) The actual success of operations in war, primarily rests on

the action of small bodies. . . . A battle is but a combination of small fights. (6) Modern warfare consists in the art of turning disconnected fighting into mutual concert. (7) The ruling principle of all engagements is to throw the bulk of your force, not on the whole, but on part of the enemy's army. (8) "He who possesses the strongest reserves at the decisive moment nails victory to his standard."—Von Waldersee. "Victory is to him who has the last reserve."—Napoleon.

Reconnaissance of Ground for Attack.

—(1) Appreciate the situation strategically. (2) Study the ground rather than discover the enemy's position. The nature of position may give some idea of enemy's force. (3) Note the weak points.

(a) Position where superiority of fire may be gained.

(b) Locality where decisive attack may be made from.

(c) Arrangements to guard against counter-stroke.

(4) Avoid large woods, large villages, diagonal features. The most suitable

ground generally consists of small undulations with tactical points.

Deductions of the Officer Commanding.

—The Officer Commanding has to bear in mind that the enemy should not only be defeated but driven from his line of communications. From the reconnaissance he deduces the following:—(1) How the ground will aid or hinder superiority of fire. (2) How the flanks can be guarded. (3) The most important tactical point in the enemy's position to attack. (4) How to guard against and deliver enfilade fire.

Frontage and Distribution.—The frontage of a unit is calculated at one man per yard of firing line and supports at close range, or 125 rifles to every 100 yards at the commencement of the attack. Thus a battalion 1,000 strong will be divided into 500 firing line and supports, 500 reserve:
 $\frac{500}{125} = 4$ in hundreds of yards, frontage 400 yards.

N.B.—No definite frontage can be laid down; frontage depends on circumstances, and tactical success also depends very much on the correct calculations

of the proportion between frontage and numbers.

The Battalion in Attack.—There is no fixed method of attack. The following is an example of how an attack might be carried out over undulating ground:—

(i.) Position of Assembly.—The battalion, with its scouts out, will be drawn up opposite its section of attack, in quarter-column in fours, by the right or left facing the enemy. Unless otherwise directed, 2, 4, 6, and 8 companies will form the firing line and supports, 1, 3, 5 and 7 companies the reserve.

(ii.) First Deployment.—After all ranks have been carefully instructed in what is about to take place, the order will be: "Lines of companies on Nos. 4 and 5, at (according to frontage and enemy's fire) paces interval and (according to gun or rifle fire) paces distance. No. 4 will direct—Move!" Companies will then form company column, 2, 4, 6, 8 under direct command of their captains; 1, 3, 5, 7 under

Officer Commanding. Premature extensions must be guarded against, as they mean premature drawing on the reserve. As each position is gained, the officers must ask themselves: "What shall I do next? When shall I advance? How? How far? How can I help those on my right and left?"

(iii.) Second Deployment. — As the enemy's fire begins to tell, the firing line and supports will form lines of sections at intervals according to frontage and fire, and distance according to gun or rifle fire. Reserves will seek cover, for losses amongst reserves are most demoralising, as the reserves cannot retaliate.

(iv.) Third Deployment. — The scouts halt, No. 1 section of each company extends, forming a firing line, supported by 2, 3, and 4 sections in lines of squads. The captains must get the utmost work out of their No. 1 sections before they reinforce with No. 2. The reserves seek opportunities of delivering covering fire.

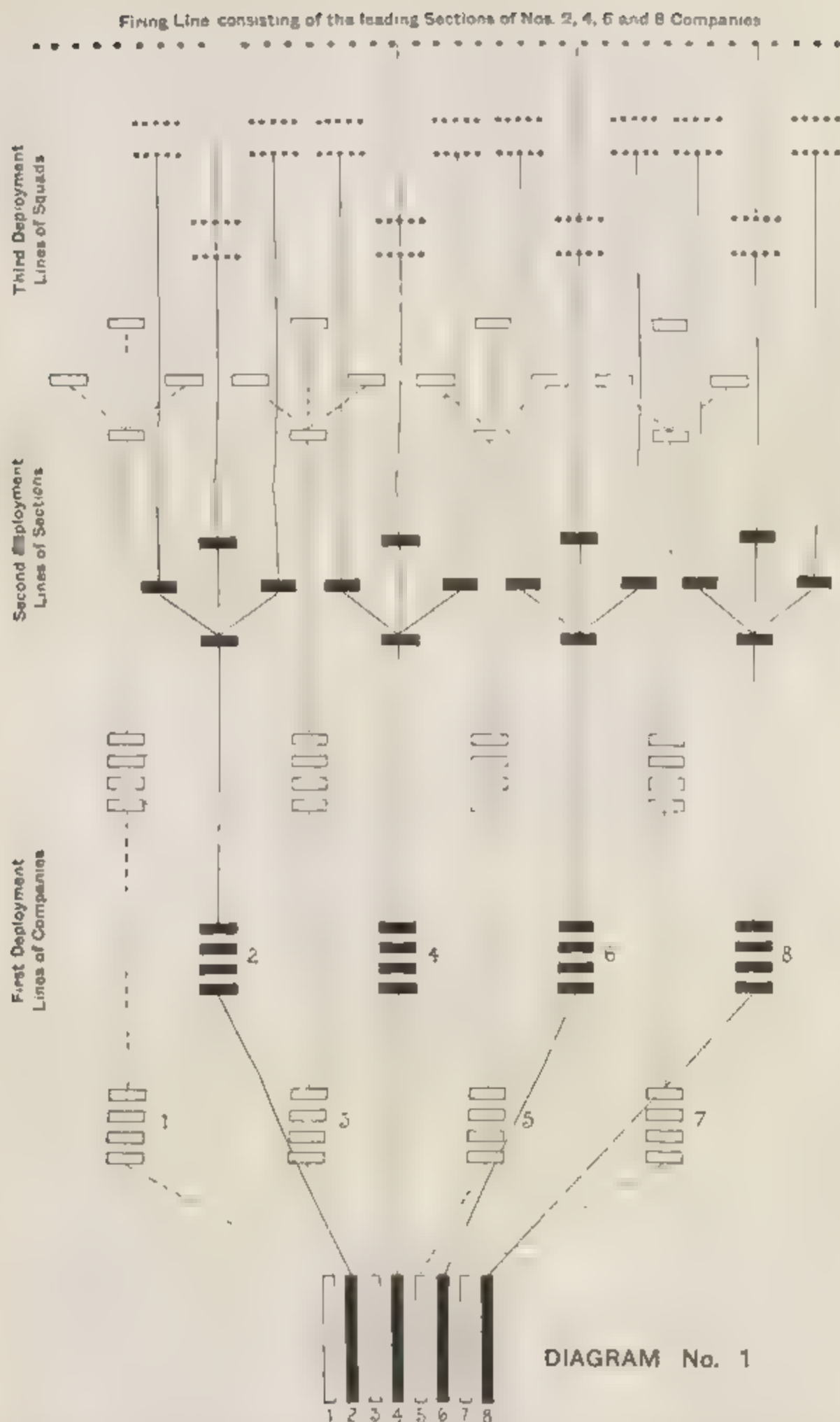
(v.) Fourth Deployment.—The firing line and supports are in one line pinning the enemy to his position by a maximum fire. The artillery, which has been covering the advance, now opens rapid. The firing line must look out for a counter-attack. The Commanding Officer now brings forward his reserves.

(vi) The Assault.—Fire superiority having been gained by the extra fire of the last reserves, the firing line is carried forward, and the position is taken with the bayonet.

8.—THE DEFENCE.

(*I.T.*, ss. 138-147; *F.S.R.*, Pt. I., ss. 107, 108).

The term "defence" comprises: (1) Active defence; its object is to create an opportunity for a decisive offensive, therefore the position selected should facilitate the delivery of a counter-attack. (2) Passive defence; its object is to beat off an attack with no idea of advancing. (N.B.—A close country is less favourable to an



The Battalion should be formed up in Quarter-Column in fours by the left (or right) facing the enemy so that each company can move forward immediately in column of route. Frontage = $\frac{\text{Strength}}{2}$ in yards, or counting casualties, $\frac{\text{Strength}}{3}$. To move forward the lines of companies the words of Command are "Out the Scouts" "Lines of Company Columns, Left Companies leading" — "At paces interval" — "At Distance" — "No. 4 will direct" — "Move"

inferior force than an open.) (3) Delaying action; its object is to gain time by bluff and manoeuvre; it therefore calls for a high degree of discipline.

General Principles.—(1) The defender can only conquer if he has the best of it all along the line, while the assailant conquers if he gains the upper hand at any one point. (2) To make war is to attack, therefore no defensive operations, if possible, should be purely passive. (3) To be driven from a position means defeat; to retain it does not mean progress; to repulse the attack and advance alone means victory. A commander therefore should meet the main attack with main defence, and should contain holding attacks, whilst he preserves a large force for the counter-attack.

Distribution.—Troops are divided into: (1) Firing line and supports. (2) Local reserves. (3) General reserve. Strength of (1) depends on the field of fire and the nature of the cover; of (2) on the nature of the work that is to be carried out (N.B.—As local reserves are only to act temporarily on the offensive, they must be

made so weak that they possess no inherent fighting power); of (3) generally half of the total force, for the decisive counter-attack.

Reconnaissance for the Defence.—(1) General reconnaissance of extent and positions for the counter-attack. (2) Detailed distribution and fortifications. A position should be just strong enough to wear down the attacker in his advance, so that when a certain moment has arrived, the balance of remaining energy rests with the defenders. (3) If possible, look at the position from situation of the attacker. (4) Avoid salients, convex slopes, large woods to front and flanks, advanced posts, and streams, swamps, and other obstacles in front of counter-attacking ground.

Entrenching a Position.—No strength of position alone will compensate for the loss of initiative. Position must be prepared with a view to economising defence in order that power of offence may be eventually increased. The strengthening of a position has for its object the reduction of the immediate defenders and the

increase of the general reserve. Defensive positions are not usually continuous. Works should be so placed so as to induce the attackers to present a salient (flank) to the defender's local counter-attacks.

(1) Skylines should be avoided save for dummy trenches. (2) Avoid steep slopes and the foot of slopes. (3) Build trenches which can bring fire on the attackers at close range. (4) Trenches should communicate with the rear, should be concealed, should be provided with head cover, and should be so sited as to come as a surprise to attackers.

Position of Reserves.—The local reserves will be in their respective sections. The general reserve in rear of centre until the position of the counter-attack can be decided upon.

Local Counter-Attacks are delivered by officers in charge of sections of the defence so as to drive back the enemy and force him to use up his reserves, in order to restore the battle. To achieve its purpose a local counter-attack should compel the enemy to expend more force than is in-

volved in its own delivery. Local counter-attacks should seldom be carried far in advance of the entrenchments, and should reform directly the enemy's firing line falls back.

The Decisive Counter-Attack will be delivered by the general reserve. The most favourable moment is when the enemy has expended his last reserves, and is endeavouring to storm the entrenchments. It should threaten the enemy's line of retreat; if made as a flank attack, the movement must not be executed under fire of the enemy. It should be carried through with the utmost vigour, and any decisive success should be the signal for the whole line to advance. The favourable opportunity will be fleeting, and when it comes there must be no delay in seizing it.

Duties of Commanding Officer.—He will see (1) that reserve ammunition is conveniently placed; (2) that communications are maintained; (3) that reports on the movements of the enemy are communicated; (4) that a central position is fixed where reports can be sent to; (5) that

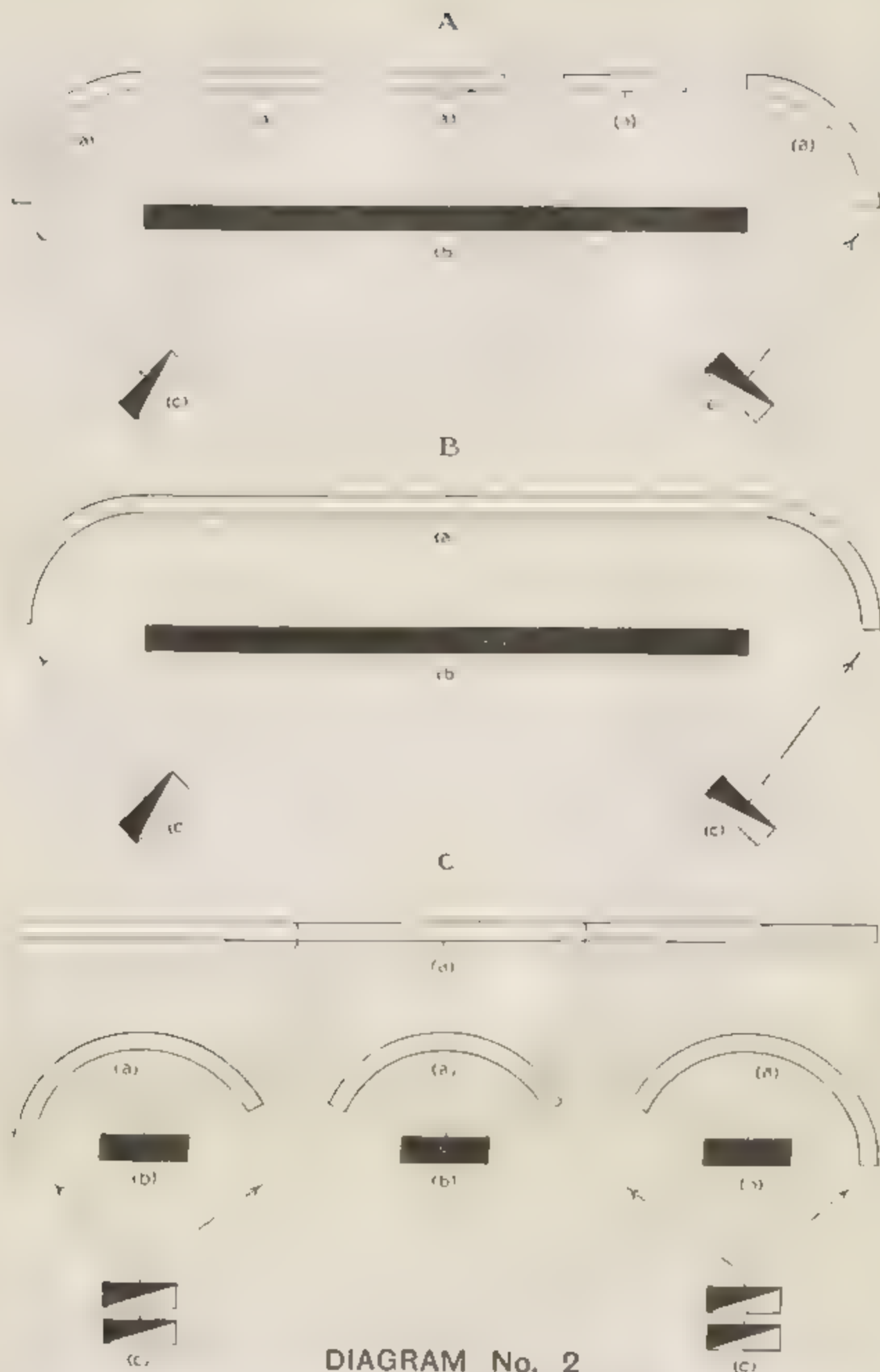


DIAGRAM No. 2

Theoretical employment of the Local Reserves. As the flanks are the weak points of the attacking line, the dispositions of the defenders should be such as to compel the attackers to offer to the counter-attacks of the local reserves as many flanks as possible. A continuous defensive line such as in A & B will only compel the attackers to offer two flanks, a broken one, of three tactical points, such as in C, a possible six (a) Attackers (b) Defenders (c) Local Reserves

dressing stations are arranged for. (6) He will make himself acquainted with the best line of retirement.

Duties of Subordinate Leaders.—(1) Maintain communication, control fire, and observe regulations as to water and supplies. (2) See that every man has good cover, that the firing line is hidden, that ranges have been taken and communicated, that every man has ammunition and water, that the supports know the position of the firing line. (3) They will ascertain the positions of the dressing stations and the reserve ammunition. (4) Report all movements of enemy. (5) Protect the flanks with scouts. (6) Co-operate with neighbouring companies.

9.—OUTPOSTS.

(*F.S.R., Pt. I., ss. 75-89*).

General Principles.—(1) Every commander is responsible for the protection of his command against surprise. (2) The commander of each protecting detachment, wherever situated, must keep his command at all times ready for action. (3) Every

body of troops halted will be protected by outposts, in order that it may rest undisturbed. (4) The duties of outposts are: (a) to provide protection against surprises; (b) in case of attack to gain time for the main body to get under arms, etc. (5) The first duty of outposts is reconnaissance, the second resistance. (6) To see without being seen is one of the first principles of outpost duty. (7) Outposts should be as weak as is compatible with safety.

Reconnaissance of Outpost Position.—

(1) Strength and limits of sections; (2) lines of retreat; (3) result on the general line if one or more sections should be driven back; (4) important tactical points; (5) locality where each section can make a stand; (6) facilities of communication; (7) difficulties in forwarding supplies; (8) nature of country in front; (9) employment of machine guns.

Assuming an Outpost Position.—Three things must be known: (1) the position of the bivouac; (2) the position that the main body will hold; (3) the line of resistance. Tactical points should alone be held, ground between watched and patrolled.

Position of the Outposts.—(1) Decide on the line of resistance; this is usually the piquet line; because the piquet line gives better warning than the sentry line, and fights better as it knows it will be reinforced by supports. If the line of supports is chosen, the piquet falling back is liable to cause panic and mask the fire. (2) Quarter troops. Facilities for observation are less important than facilities for protracted resistance. At night all roads should be well posted. In selecting an outpost line consider the localities where each section will end and their comparative strength, and the result on the general line, should one or more sections be driven back. Look out for: lines of retreat, important tactical points, localities where each outpost company may make a stand, facilities of communication, difficulties of supplying food, etc., positions for machine guns, and nature of country in front.

Composition of the Outposts.—Outpost troops are placed under one officer, who divides his command into sections; the officer in command of each section divides

his men into piquets and supports. The officer in command of outposts arranges for the reserve.

The Commander of the Outposts will issue orders containing: (1) information of the enemy and of our own troops; (2) general position to be occupied; (3) disposition of outpost mounted troops; (4) disposition in case of attack; (5) special arrangements by night; (6) smoking, fires, cooking; (7) how the outposts will be relieved; (8) his position.

Duties of the Officer Commanding an Outpost Company.—(1) To move with precaution to the ground to be occupied and halt under cover; (2) to examine the ground and tell off piquets and supports; (3) to give instruction to his piquet commanders; (4) to send out patrols.

Supports.—A support will usually support two piquets, and must keep in communication with them.

Piquets will be drawn up on the line of resistance; they should strengthen it, and must furnish the sentry line and patrols.

Duties of Piquet Commander.—He will explain to his piquet his orders, and will detail the various duties and reliefs. He will satisfy himself that every man knows the direction of enemy, the position of the neighbouring piquets and of the supports, what it will do in case of attack, if cavalry are out to the front, their line of retreat, that commanders of sentry groups know what is to be done with persons who are found entering or leaving the outpost line. To the sentries, in addition, position of the sentries on their right and left, position of the piquet, the extent of the ground they have to watch, how to deal with persons approaching their post, the names of local places. "In order to avoid disturbing men unnecessarily, a piquet will always be arranged, so that the non-commissioned officers and men of each relief of the various duties bivouac together. All reliefs should know exactly where to find each other."

Sentries and Patrols.—Sentries are posted in groups of three to six men, about a quarter of a mile from the piquet; they will halt all persons approaching their

post. "As all movement is likely to attract attention, it is generally inadvisable to permit sentries to move about. On the other hand, if permitted to lie down, sentries may not remain sufficiently alert. Permission to lie down, except to fire, should only be given for special reasons. One or more single sentries should be posted over the piquet itself for the purpose of communicating with the sentry groups and warning the piquet in case of attack." Reconnoitring patrols (two to eight men) search the country in front; they should avoid fighting. The commander of the piquet should satisfy himself as to the alertness of his sentries.

Important Points.—Stand to arms an hour before sunrise. Avoid houses, buildings, and woods. Avoid firing when it may give away the position of the outposts. Bayonets should not be fixed by day or on clear, bright nights. Sentries should avoid skylines. Outposts pay no compliments.

10.—ADVANCED AND REAR GUARDS.

(*F.S.R., Pt. I., ss. 65-74*).

The Protective Mounted Troops—As troops are protected whilst at the halt, so have they to be when on the march, by the cavalry. The cavalry are considered under the three heads: (1) Divisional duties; (2) General protective duties; (3) Special missions. Those employed on (2) are known for the time being as "The protective mounted troops." Their duties are: (1) To furnish information regarding the enemy; (2) To furnish information regarding tactical features, roads, etc.; (3) To prevent the enemy obtaining information; (4) To seize and hold positions in front of the infantry. When it is desired to cover the movement of a number of columns by something stronger than a protective screen, the mounted troops may be reinforced by other arms, the whole forming a general advanced guard. The force covering each separate column is termed a tactical advanced guard.

Composition of an Advanced Guard.—

An advanced guard varies from $\frac{1}{4}$ to $\frac{1}{8}$ the whole force. It is divided into a vanguard to reconnoitre, a main guard to fight. If composed of a part of a unit, the remaining part must march at the head of main body. Every advanced guard should have a special point told off, whose object is not to think about the enemy, but about the troops behind; this point should report on the conditions of road, etc.

Action of an Advanced Guard.—(1)

The advanced guard must protect the main body from the moment the march of the latter begins. (2) Its duty is not to advance or retreat when opposed to a strong enemy, but to manœuvre and secure liberty of action to the main body. (3) The ruling factor is the appreciation of some tactical locality which, if seized, will assist the development of the attack of the main body. (4) But wide turning movements should be avoided because they uncover the main body behind. (5) All manœuvres must be carried out with reference to the main body.

Composition and Duties of a Rear Guard.—The duty of a rear guard is to relieve a defeated force from pursuit. "A rear guard has to force an enemy to take three hours to cover three miles."—Napoleon. A rear guard does not require a strong reserve.

Action of a Rear Guard.—(1) The first position of a rear guard is the battlefield; this position must be held the longest. (2) A rear guard action must be governed by the consideration of what is most to the advantage of the main body. (3) The true role of a rear guard is to offer battle but not to accept it. (4) Yet at times it may be necessary to counter-attack. (5) The greatest obstacle a rear guard can present to an enemy is an open field of fire. (6) Whilst an advanced guard leader may expect support, a rear guard leader must expect none. (7) A rear guard must show a strong front and make sure of a good line of retreat. (8) A rear guard must forestall any attempt on the part of the enemy to work round its flanks. (9) Lines of retirement should not converge.

A Flank Guard.—The duties of a flank guard are similar to those of an advanced guard, but on the flank in place of to the front.

II.—NIGHT OPERATIONS.

(*F.S.R., Pt. I., ss. 129-140.*)

The power and range of modern weapons of war is so great that night operations have become doubly important. Nevertheless, no undertaking should be carried out by night if it can be carried out by day, because night work is unnatural. (1) The best hours of sleep are between 12 m.n. and 4 a.m. (2) Night marches are most wearisome; silence and restriction of vision draw out the minutes to hours; men get sleepy, lose step, their place in the ranks, and get mixed. (3) The example of the good soldier is lost. (4) At night man and beast grow nervous; there is nothing more terrible than a battle at night.

Night Operations are undertaken to: (1) Out-manceuvre an enemy; (2) to pass over ground impossible by day; (3) to com-

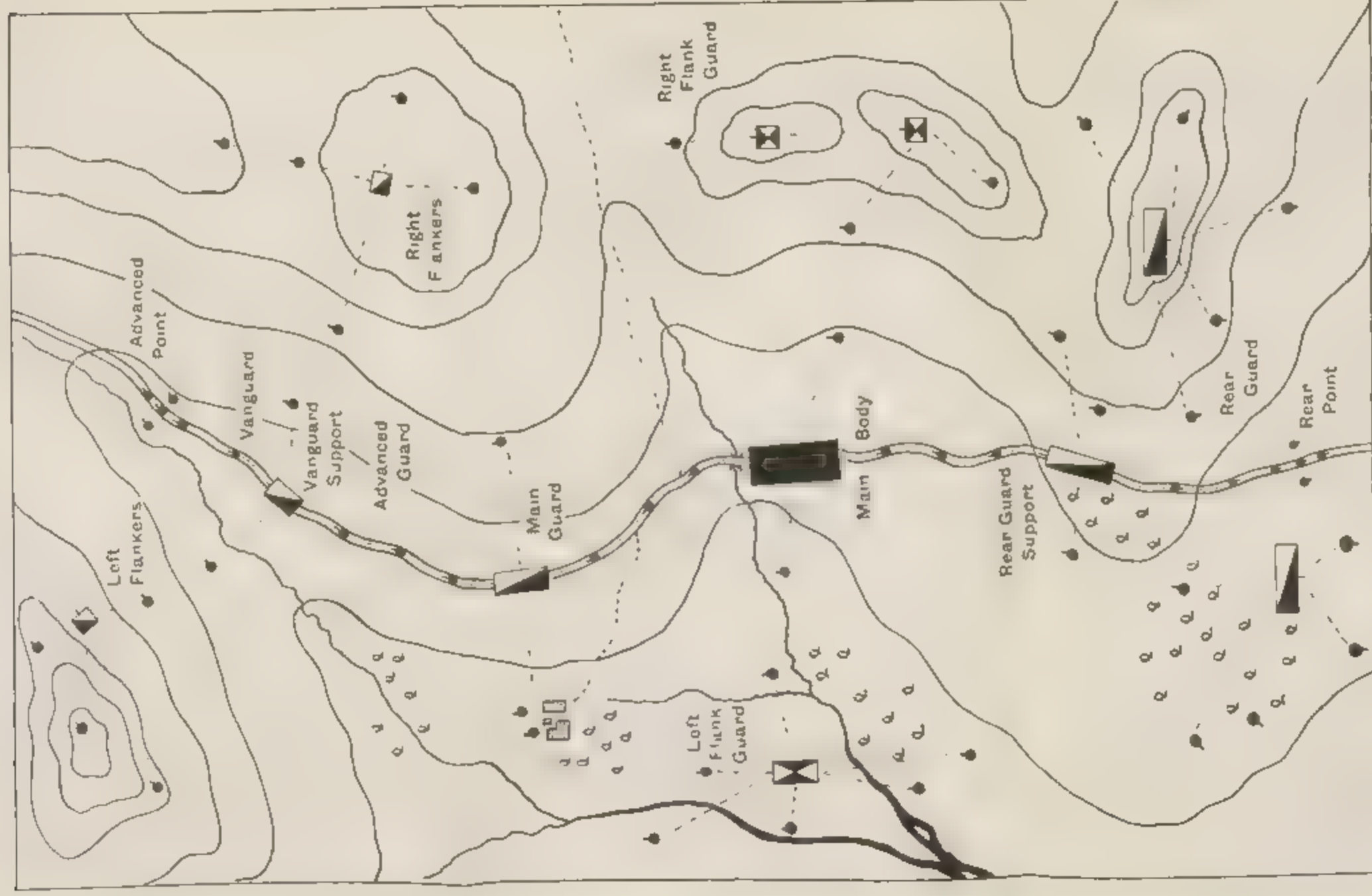


DIAGRAM No. 3
ADVANCED, REAR, AND FLANK GUARDS

plete an attack begun by day ; (4) to effect a tactical surprise ; (5) to avoid the heat of the sun.

Essentials to Success.—(1) Simplicity ; (2) surprise ; (3) secrecy ; (4) perfect preliminary reconnaissance ; (5) ample preparation and time allowed ; (6) maintenance of communications.

The Reconnaissance.—(1) Examine the route by day and night. (2) Ascertain the best method of protecting the column, and all points where checks are likely to be noted. (3) Cross roads should be marked. (4) Compass direction taken. (5) Destination described. (6) Distributions of the enemy. (7) Position of his outposts. (8) Position of his entrenchments. (9) Position of obstacles. (10) Position of landmarks which may help the advance.

Rules for Night Marches. — Night marches are of two kinds : (a) Strategical, usually outside the outpost line ; (b) tactical, usually under cover of the outpost line. (1) Procure local guides. (2) Withdraw outposts last. (3) Keep bivouac fires burning. (4) Issue orders late. (5) Main-

tain strict silence. (6) Place horses and vehicles in rear. (7) Prevent wheels rattling. (8) Horses likely to neigh should accompany the train, or be left behind. (9) All ranks must be informed what to do in case of alarm. (10) Every commander to have a fixed place. (11) Starting point should be marked. (12) No distance should be maintained between units. (13) Side roads should be blocked by advanced guard. (14) Rifles must not be loaded, but magazines should be charged. (15) No smoking should be allowed. (16) Hours of halts should be mentioned.

Night Advances.—Object, to gain ground during darkness, but attack should not be commenced until dawn. (1) May be used as a preliminary to opening a battle; (2) to continue an engagement already begun. Objective, when gained, should be entrenched. A series of advances may take place on successive nights, but this should not take place if power to manœuvre is still possible. If ground is frozen or rocky, sandbags should be carried.

Night Attacks.—Object, to secure important points on an outpost line; or to

seize definite positions under cover of darkness. Positions captured should at once be entrenched, as the enemy is likely to counter-attack. A night attack is most hazardous; if during the advance the attackers are fired on at close range the only thing for them to do is to charge home.

Preparations for Night Advances and Attacks. — Select: (1) Position of assembly; (2) position of deployment. On level ground they may coincide; both should be easily recognized. Put out outposts when possible; take care troops do not converge; arrange for distinguishing badges and a watchword.

Formations.—Night attacks being made to overcome the range of modern fire-arms, we find the formations approximating very closely to those employed during the day a hundred years ago.

Infantry Brigade Formation.—Divide force in three lines. First line a line of company columns at deploying interval, with scouts 80 yards in advance. Second line a line in similar formation, 150 yards behind. Third line 200 yards behind the

second, in quarter column, or in line of quarter columns.

The Advance.—Before advancing explain: (1) Orders to all ranks. (2) Object in view and its direction. (3) Formation to be adopted at position of deployment. (4) The part every man has to play. (5) Action in case enemy is not surprised. The following should be repeated two or three times:—(1) Magazines alone to be loaded. (2) No firing without orders. (3) Bayonets alone to be used. (4) Absolute silence. (5) No smoking. (6) If obstacles are encountered men are to lie down.

The Defence.—(1) Conceal position and strength, and reconnoitre the approaches. (2) Standing officers' patrols should be in advance of the line defended, and should fire on the enemy as he advances. They must not quit their posts simply because they hear firing on another part of the field. (3) Distant fire should not be replied to. (4) Fire should be withheld until the attackers reach point blank range; then fire and charge home, but without cheering. (5) The front should be re-

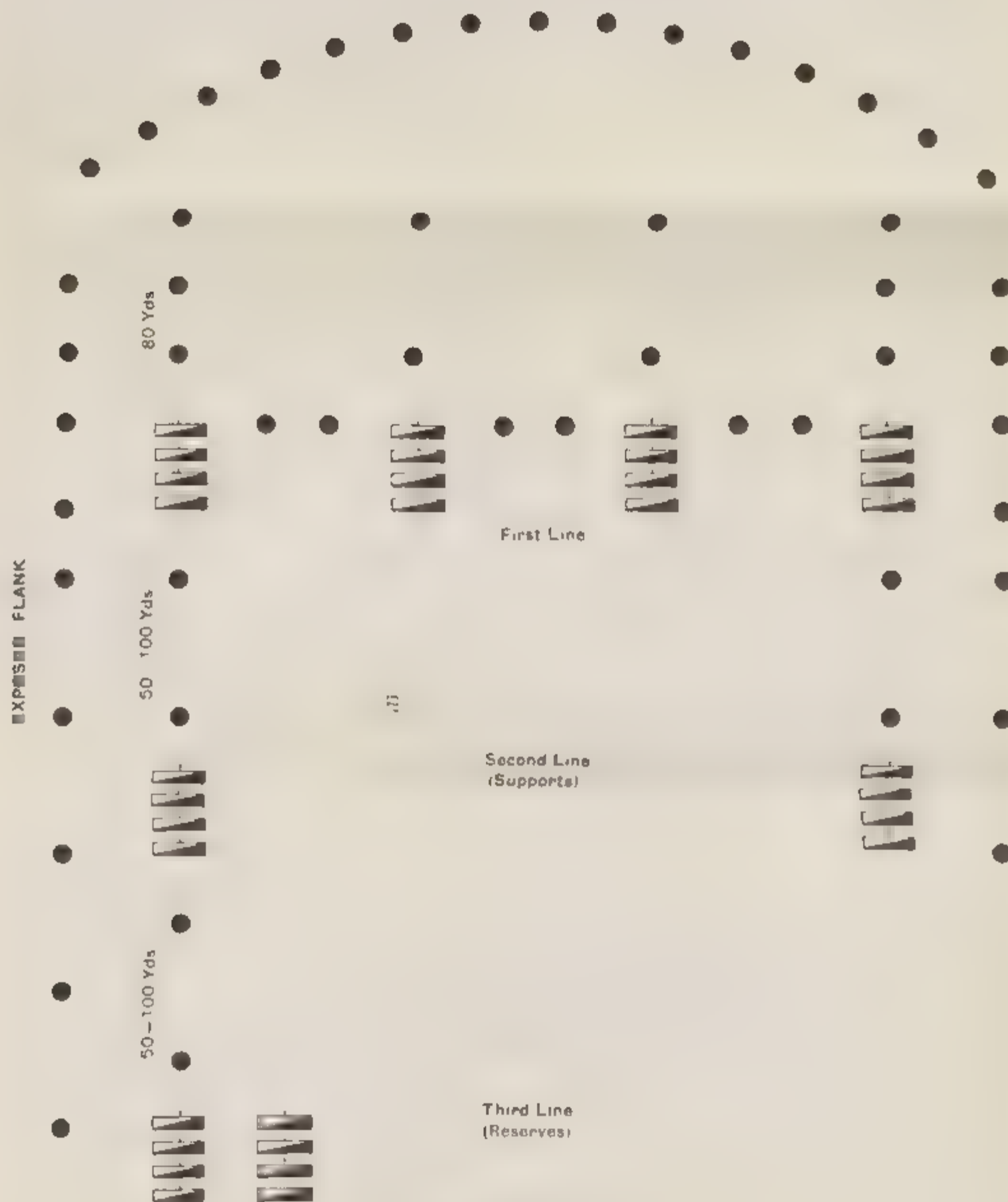


DIAGRAM No. 4

BATTALION NIGHT ATTACK FORMATION

stricted by obstacles. (6) No pursuit should be made until dawn. (7) A second position should be prepared in case of a reverse. (8) If the enemy succeeds in capturing the position, a counter-attack should at once be made.

12.—SANITATION, BIVOUACS, AND ENTRENCHMENTS.

(*F.S.P.B., s. 9; Manual of Field Engineering*).

Sanitation. — Neglect of sanitary measures inevitably result in great loss of life. Disease will often paralyse the efficiency of a force. To keep himself healthy and fit is a duty that every soldier owes to his country, his comrades, and himself. Every precaution must be taken to prevent fouling of ground. Offal or food dropped must be removed, and not stamped into the grass. Urinals and latrines are constructed for use, and men are not to ease themselves outside their tents at night because they cannot be seen; receptacles should be placed outside the tents for this purpose. Men should respect a camp as they would their own homes.

Bivouacs.—The site should be dry and not on a slope; woods, low meadows, and narrow valleys should be avoided. Good water supply is essential. Approach should be easy; watering stations should be selected so as to avoid confusion, and arrangements should be made to speedily get the fighting portion of troops out of their bivouacs. The worst billet is better than the best bivouac.

Entrenchments.—"The legitimate use of field fortifications is to enable a small body of men to resist a large one. Or to secure a portion of an army from a front attack, while the remainder is used to strike on the flank." "When you have disposed your troops so as to produce the greatest fire effect . . . it will then be time to think of throwing up such cover as time and means allow." "Work in the field will usually be of a simple character, and will demand little more than common sense." "Make the firing line at right angles to the direction you want to command most efficiently; see that the enemy is unable to enfilade this line. All fortifications are

contained in these two principles."—
Dragomirov.

General Principles. — (1) Choose the position with regard to tactical requirements; (2) the enemy must be exposed to defender's fire during his advance; (3) endeavour to deceive the enemy; (4) defenders should be sheltered from attacker's fire; (5) create obstacles; (6) improve communications; (7) clear the way for the counter-attack.

Important Points.—The bullet's penetration of the earth is 3 feet. Work with pick-axe from front to rear, never sideways. An untrained soldier should excavate 30 cubic feet (more often 20) in 1 hour; therefore, two paces of a shelter trench, 3 ft. by 3 ft., will take $1\frac{1}{2}$ hours to dig (say 2 hours).

The task per set of tools equals length of trench in feet, divided by number of sets. The output equals the number of cubic feet a man can excavate in an hour. The profile can be obtained by dividing the output by the task, and the task by dividing the output by the profile.

Trenches.—Points to be observed: (1) That the trenches command a good field of fire. (2) That the ground in rear is suitable for the reserves. (3) That the main line of defence is not continuous. (4) That the trenches are concealed by (*a*) careful siting; (*b*) assimilation to the ground. (5) That the bottom of the trenches permit of the men sitting down. (6) That the interior is protected against oblique and enfilade fire. (7) That drainage is attended to. (8) That head cover is provided.

Obstacles.—(1) They should be under the immediate fire of the defenders; (2) they should be difficult to remove; (3) they should come as a surprise to the attackers; (4) they should not impede the counter-attack.

Defence of Villages.—Casualties in villages, even under artillery fire, are remarkably few. Villages form valuable tactical points against infantry attacks. Firing lines should generally be entrenched outside and in front, or on the flanks; and, as the enemy approaches and

his artillery fire slackens, the defenders should gradually fall back on the village itself. To hold a village (1) Divide it into sections, each under its own Commanding Officer. (2) Tell off an inner reserve. (3) Defences should be arranged so that the defenders may retreat with ease, whilst the assailants are checked by fire from the adjacent walls. (4) If part of the village is captured the inner reserve should at once counter-attack. (5) Divide the defenders into three lines of equal strength (*a*) exterior line; (*b*) interior line; (*c*) inner reserve.

Defence of Woods.—Avoid large or dense woods, they act like filters; though masses of men enter on one side, they only drip out on the other. Discipline, *moral* and formation are lost in a wood. In defending a wood (1) establish communications between the firing line, supports, and the main body; (2) cut down the trees round the salient portions and form abatis, causing the enemy to enter the wood by the re-entrants; (3) divide the wood into sections, each under its Commanding Officer. Defenders should

be placed in three lines; supports should be numerous and small, and reserves large, to watch for turning movements. In a wood success belongs to the leader who keeps his troops best in hand.

IMAGINATION AND REALITY.

If we now turn back to our programme, we shall find that several of the days' work in camp consists of some simple tactical problem which might actually occur at any moment during active service. This being so, it is essential to instruction to surround these small schemes with an aura of reality. In order to vitalise them an enemy should always be imagined, or, far better, should actually exist; and this is not difficult when companies are working together, even if a little when companies are working on their own. To attack an unoccupied hill may, no doubt, be good practice, but to attack it when it is held, even if only by a squad, is a much better one. Further, a company divided against itself, in the instructional sense, can learn how to become strong by mutually criticising its own actions, and



DIAGRAM No. 6

I. DEFENCE OF A VILLAGE

- A Exterior Line
- B Interior Line
- C Inner Reserve
- D Gun positions

II. DEFENCE OF A WOOD

- E Firing line entrenched
- F Entanglements
- G Supports
- H Reserve



interest will grow as conclusions are reached after such healthy argument as— Did the men on the hill expose themselves? How many were there there? What range were they firing at? What did they on the hill think of the advance? etc., etc.

When a man knows he is being watched he does his best, and even the best of us do not do this when we know that only some astral conception of an enemy is occupying an imaginary hill, situated in the centre of a swamp not marked on the map.

The hill being occupied by an actual living force, the plan of attack should be worked out on the same system as is taught during the winter training on regimental and on staff tours. It is important to remember that Appreciations of Situations and Problems are not mere theoretical legerdemain, backgrounds upon which staff and other officers may cast the reflections of their wisdom, but are approved systems of reasoning which lead to a rapid assimilation and co-ordination

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of facts; in other words, of sorting and balancing the pros and cons of the situation.

This being so, we will here set forth a simple scheme as an aid to the solution of minor tactical problems, which should prove as useful during camp as during winter tours, and without some knowledge of which logical conclusions, for ordinary individuals, are liable to be placed aside for a gamble on a "guess," a system which, nine times out of ten, leads to blunder and failure.

THE SOLUTION OF SIMPLE TACTICAL PROBLEMS.

Divisions of Work.—In attempting to accomplish any undertaking, it is necessary to divide our work into:—

- (1) The obtainment of knowledge and information concerning it.
- (2) The application of this knowledge and information in completing it.

- (3) Further, should we wish to progress in our knowledge, so that on the next occasion we may have more certain information to apply, we must criticise the result of our application, and judge whether the work accomplished is of the best; if not, then what imperfections are due to faulty application or to faulty knowledge itself?

The Obtainment of Knowledge.—Now, in the solution of a military situation, or problem, we find that to hope for a correct solution we must first obtain information regarding it. As it is impossible to do this on the spur of the moment, or in the midst of an engagement, we must, before we take the field, set to work and thoroughly master the principles of the military arts and sciences; without these, no application worthy of the name is possible during war or during a tactical exercise. We must not, trusting to the Field Service Pocket Book, leave the obtainment of knowledge until a problem arises, but must prepare ourselves to meet

any situation at the shortest conceivable notice, and this we can only do by thoroughly studying the regulations and applying ourselves with enthusiasm to their teachings. All this can be carried out theoretically and practically by means of books, lectures and criticisms, by means of exercises, manœuvres and tactical tours.

The principles understood and remembered, we now turn to their application. Firstly, we summarise our means; secondly, we calculate the end in view; and thirdly, we bring the two into intimate relationship in our answer; that is, in the plan by which we make our means fit the end.

This completed, we turn and criticise the result, and having deduced from our successes and failures new facts, we rectify our theory so that on the next occasion greater success may be ours.

To summarise we find:—

1. The obtainment of knowledge.
 - (a) Theoretical education.
 - (b) Practical instruction.

2. The application of knowledge—
 - (a) The summarisation of the means.
 - (b) The calculation of the end.
3. The result of the application—
 - (a) The deduction of new facts.
 - (b) The rectification of our theory.

The Application of Knowledge.—To now turn to (2), we find that, in order to apply our knowledge, we must realise our means, and understand the end to which we are about to apply our knowledge through our means.

Our means are our men and weapons, and the conditions of place and time under which we find ourselves. Our end is the attainment of our object, which is hedged round by the enemy and the means at his disposal; and in the field it will, for us, consist of some small task which should aid the attainment of our object, some small part of the general plan of campaign, which, in its turn, should have for its object the utter destruction of the enemy's fighting forces.

To fit these two—means and end—together in a scheme of action, we have

got to appreciate the whole situation; that is, to bring *originality of thought* to bear upon it, and then, having calculated the possibilities and our chances, to shape our plan in accordance with the methods of warfare laid down in our Service Regulations, so that all may understand it, and *unity of action* may result.

In single combat, a man not only brings originality of thought to bear upon his plan of action, but further carries out his plan without reference to any understanding save his own, and, therefore, may act as he likes. But in dealing with a mass of men, the more collective and scientific fighting becomes, the more is it necessary to translate the plan of action into terms common to the understanding of the most simple-minded of those under us. Success on a modern battlefield depends far more upon unity of action than upon originality of thought; and, therefore, whatever may be our opinion of the regulations, we must abide by them, so that others may rely on our support, and not fear some erratic manœuvre which none will expect, or can interpret or follow.

Appreciation of a Situation.—In Training and Manœuvre Regulations, 1909, paragraph 13, a definite form is laid down of how a military situation should be appreciated:—

Consider:

- (1) The position and relative numbers of the opposing forces.
- (2) The object to be obtained.
- (3) Factors which might influence the attainment.
- (4) The courses open to both sides.

And then formulate:

- (5) The plan recommended for adoption.

An appreciation of a situation may be either lengthy or short; but, as it is almost certain to be a little complex to a beginner, it may generally be classed as advanced work. Not so, however, the appreciation of a simple problem, and the rapid answering of simple tactical questions, which even the most junior officer will constantly be called upon to carry out.

Appreciation of a Simple Problem.—

Very similar to the appreciation of a scheme is the appreciating of a simple tactical problem, only more caution should be taken in eliminating the personal errors of the individual who is attempting the solution.

(1) The problem should first be read through once or twice, so that a general idea of what is required may be obtained. It should never be skimmed through, lest first impressions, which are always the strongest, are contorted or blurred. This done, the problem should be carefully studied by aid of the map, and still more so with the ground itself. To do this the map must first be set and the position of the worker marked on it. It must be remembered that the map should only be used as an aid to such parts of the ground as cannot be seen; for the rest, the ground itself should be its own interpreter.

(2) The next step is to remember the first principles laid down in the training manuals, so that a plan of action may be constructed within the scaffolding afforded

by them. Thus should a problem comprise an advanced guard action, it should be remembered, before an answer is attempted, that an advanced guard must afford a protecting cover to the main body; that when small parties of the enemy are met it must drive them back; that when strong it must manoeuvre and bluff, so that the main body, during its demonstration, may deploy from column of march into battle formation.

(3) First principles clearly visualised, the next move is to calculate out the time at our disposal, and at the disposal of the enemy.

(4) The time clearly calculated out, one or more plans suitable to the situation should rapidly be evolved. As rapidly should they be criticised from the enemy's point of view. In fact, for a moment should the worker mentally step into his opponent's shoes and look back on his own plans through his enemy's eyes, trying his utmost to devise a counter plan whereby his own may be frustrated. Thus will he discover his weak points, and will sift from

out his plans the one which is the most likely to survive. This will usually be found to be the one which travels along the path of least resistance.

(5) The plan decided upon, should a written answer be required, the worker should refer back to his problem or orders, and again make certain of the force at his disposal, for no single individual must be forgotten; the answer should then be logically arranged, it should be short, clear, and to the point.

Answering Simple Tactical Questions.
—In rapidly answering a tactical question, it will be impossible to ponder over the answer, for action has often to be instantaneous. First principles have, therefore, to be so thoroughly assimilated that they are automatically brought to mind on the question being asked, and spontaneously shape the answer. Such rapidity of answer needs considerable practice; but even without a master it can be cultivated by setting oneself a question, immediately writing down the answer, and then, in one's own time, arguing out the solution

by the means already set forth. But it should be remembered that however valuable rapidity of answering may be, a random answer is worthless; and that it is better to pause a moment and collect one's wits than to fly off at a tangent in a guess. If, however, the answerer should be absolutely nonplussed, he should not resign himself to doing nothing, for this, of all mistakes, is the most fatal in the field, but he should do the boldest thing that he can think of, for in four cases out of five it is sheer pluck that will help him to surmount all difficulties. "When in doubt hit out," is a good maxim to remember.

Communication of Information.—Having appreciated the situation, problem, or question, the next step is to transmit it to those concerned; this can be done verbally, by written orders, by instructions, messages, or reports.

To do so successfully and clearly several requirements are needed:

- (1) A military vocabulary.
- (2) A universally accepted method.

(3) Knowledge of the recipient, so that such instructions may be added as will amplify his powers of co-operating in the general plan without hampering his actions.

Orders.—Orders are the most imposing and the most important form of making known a decision; they, however, require some considerable time in drawing up, and are therefore not usually made use of when a small force is being dealt with. Thus a captain would not issue an operation order to his company, an officer commanding a battalion might and a brigadier certainly would; for, having several units under his command considerable detail is required. Orders and operation orders are dealt with in F.S.R., Part I., 1912, sections 9 and 12.

Operation orders deal with essentials, and not with reasons and suppositions, though a reason for each step should exist clearly in the writer's mind before he commits his orders to paper. They should not deal with abstract situations, but should be drawn up within the limits of information at hand, and as this information is increased so should fresh orders be issued.

Instructions.—Instructions are issued:
(1) When the situation is so vague that nothing definite can be known. (2) When some special point arises which requires reasons or explanations to elucidate it. (3) When the officer issuing orders is not on the spot, has little knowledge of the ground, and so cannot appreciate the local situation from the point of view of the recipient.

Messages.—Messages are made out in Army Book 153. A message will commence with the rank, name, unit, and address of the addressee, followed by the date, and the number of the sender's message. If the message is in reply to another, it should bear the number and date of the message referred to. All messages must be signed, and the hour of the despatch mentioned on the envelope.

Reports.—All reports must have a heading, must mention the map to which they refer, bear the name of the place at which they are completed, and the date and hour; at the end they should be signed.

In a report a wide margin should be left, and in it inserted the sub-headings of the report; these should be numbered. The first sub-heading should be a summary of all such that follow it, so that the recipient can discover at a glance the main trend that the reporter has arrived at. After this, each step of the report should be built up in logical sequence.

THE BASIS OF SUCCESS.

Having transmitted our plan by one of the above means, the result depends on the recipient and the local conditions of the moment, which are both usually quite beyond the sender's personal control. But as the recipient is very often a man who has been instructed during peace by the writer of the order, he ought therefore to be able to carry out at once the orders he receives, toning them to the local conditions of the moment.

This brings us back to the first point of our scheme, *viz.*: The obtaining of information and its corollary, the retailing of it to those under us. Thus we shall find that the more we teach our men and

understand them during times of peace, the better will they understand us and carry out our orders in times of war. A captain who has not taken the trouble, whilst in barracks, to make himself acquainted with his men, and to train them to understand him, has no one to blame but himself if, in the field, they fail to carry out his orders.

THE RESULT OF APPLICATION.

We have now but one point left, namely, to consider our result. The battle over, the object obtained, the question answered, we should look back upon our starting point from the goal which we have won, and see how our plan and means have helped us; in fact, we should now appreciate and criticise our means from the point of view of one who has solved the answer, but who is still uncertain that some better means in its solution might not have been employed. Thus, one by one, we are enabled to discover our mistakes. Things and situations are no longer seen blurred, but are seen clearly; we make a change here and a small improvement there, ear-mark our shortcomings so that they may not occur

again, and throw out our successes distinctly on a clear background. Thus, by making mistakes, as long as we realise how we made them, even more so than by solving problems successfully, shall we help ourselves in accumulating new facts and enlarging our theory of war.

A LIVING SYSTEM.

To summarise. When during training in camp it is intended to carry out a tactical exercise: first, an enemy, imaginary or real, should be created. Then for a moment the situation should be thought out; a plan evolved, which should be clearly explained to all who are about to carry it out. This done, the plan is set in action, and, when finished, a general criticism of the result should take place, in which all ranks should be encouraged to join. Thus will military training become a real living thing, which all will be interested in, will profit by, and will enjoy; and which all will look forward to recommencing on the following year, and in preparing for during the slacker months of the winter training season.



